EMI

Across Languages, Disciplines, and Contexts

Editors

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Letraria®

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Foreword

Ute Smit
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This volume includes papers developed from conference contributions to the 8th ICLHE conference on “EMInclusion: Integrating Content and Language for Egalitarian Higher Education”, which took place in Porto Alegre, Brazil, from the 24th to the 27th of September 2025. As a typical book of proceedings, this publication might thus not seem that unusual in academia, not even when its production phase of a year is impressively expedient, reflecting effective work on behalf of the contributors and especially the editors. What makes it truly remarkable, however, is the story behind it, which it is my privilege to unfold. But not to worry – as the opening act, I’m not aiming at a complete narrative of events here, but rather at an appraisal of the conference that has made this book possible.

While the label of ‘8th ICLHE conference’ hints at continuity rather than innovation, this event was truly ground-breaking in terms of its location and, linked to that, academic focus. Hosted by the Federal University of Health Sciences of Porto Alegre (UFCSPA) and the Federal University of Rio Grande do Sul (UFRGS), it was the first ICLHE conference outside Europe; the first time our members and other academics, researchers and teacher (educators) interested in English medium higher education and, more generally, the intersection of content and language in higher education could meet and learn from each other on non-European soil. While we have had numerous online international events – after all, our members are based in more than thirty countries all over the globe – the three conference days in the South of Brazil provided clear proof of how enriching and important the physical setting is for situated and contextualised exchange and discussion, also repositioning who and what is (not) local and more or less ‘normal’, in the sense of to be expected.

With all educational topics and concerns integrally shaped by contextualisation, the location of the event was not only relevant for us participants, but arguably even more crucial for our academic interest and conference focus, i.e. “EMInclusion: Integrating Content and Language for Egalitarian Higher Education”. As topicalised across presentations and succinctly pointed out in Robert Wilkinson’s plenary address, EMI, while all-pervasive in higher education institutions world-wide, is fundamentally diverse: “That which we call EMI is EMI, even if it differs from all other events equally termed EMI”. This definitional fuzziness requires a fully situated approach, recognizing that EMI policies and practices can only be handled or investigated comprehensively when considering their respective ecologies systematically (e.g. Dafouz & Smit, 2020). In this connection, Southern Brazil was a particularly welcome conference location: set in a large country whose main educational language is Portuguese, but bordering to Spanish-speaking Latin America, which is home to a diversity of linguacultural communities, this area comes with a history of multilingual stratification. With EMI a relatively recent and still marginal phenomenon, the globally induced call for more English in higher education is not only met with support but

also with resistance against its potentially divisive force causing further inequality. This serious issue that Brazil shares with many other settings globally (e.g. Mirhosseini & De Costa, 2025) was one of the motivators for the conference in the first place, as reflected in the conference title, calling for egalitarian and inclusive English-medium higher education through integrating content and language.

Apart from quoting the name of our association, *integrating content and language* can also be understood as the vision we have of how EMI in all its fuzziness should be conceived of, implemented and investigated. Rather than focusing on English as medium of instruction, the conference as well as our association argue that the focus should be placed on the teaching and learning practices and the integral role language and languaging play in the educational process. Such an approach, which foregrounds the institutionalized educational aims and relevant (critical) pedagogical practices, is also at the forefront of the chapters in this volume. Profiting from the conference location, the predominantly Brazilian papers reveal a clear interest in carefully and critically investigating how teachers and students can (be supported to) make their teaching and learning undertakings (more) successful and enriching educational experiences by using English, Portuguese and other resources in discipline-specific ways. For the range of topics covered in detail, the challenges identified and potential solutions offered in different Latin American, European and Chinese contexts, you are heartily invited to peruse the chapters of this volume!

Let me finish this Foreword by emphasizing that our Brazilian conference was a true highlight for the association and all its members. My most heartfelt thanks go to Ana Luiza Pires de Freitas and Simone Sarmento for their courage and vision to plant the conference seed, their perseverance in making it grow and develop, and their hard work in reaping its fruits, first and foremost this very volume.

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Situating ICLHE: Language, Internationalization, and Inclusion in Higher Education

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The growing presence of English in higher education (HE) cannot be separated from broader processes of internationalization and from the unequal conditions under which students and academics participate in them. Although ICLHE is an international field and this volume brings together contributions from different national and disciplinary contexts, this opening discussion deliberately gives substantial attention to Brazil. This emphasis, however, does not narrow the international scope of the volume. Rather, it responds to the fact that Brazil remains underrepresented in much of the international literature on EMI and related approaches, despite the considerable and growing body of research produced in the country. It is also fitting given the context from which this volume emerged: as Ute Smit notes in the Preface, the 2025 conference marked the first time an ICLHE conference was held outside Europe, making Brazil not simply the host setting but an important point from which to revisit questions of language, internationalization, inclusion, and content-language integration.

In Brazil, where Portuguese has traditionally been the dominant language of instruction, access to additional languages has long been unevenly distributed and strongly associated with opportunities available outside public education. At the same time, the internationalization of Brazilian HE gained considerable momentum in the 2010s through national initiatives such as *Science without Borders* and *Languages without Borders*. These programs brought questions of language proficiency, academic communication, mobility, and participation in international academic practices into sharper focus and helped expand the understanding of internationalization beyond physical mobility alone. Within this context, Internationalization at Home (IaH) became relevant as a means of extending international and intercultural experiences to students and staff who would never participate in mobility programs (Baumvol & Sarmento, 2016, 2019).

English-Medium Instruction (EMI) emerged within this broader movement. Early accounts portrayed EMI in Brazil as relatively sporadic, often dependent on individual lecturers and with limited institutional recognition. Martinez (2016), for example, described a landscape in which courses taught in English were difficult even to identify before 2010, followed by more visible institutional initiatives from around 2014 onwards. Subsequent mappings confirmed that EMI provision was expanding: the 2018–2019 *Guide to English as a Medium of Instruction in Brazilian Higher Education Institutions* documented more than 1,000 programs, courses, and activities in English across over 70 Brazilian HE institutions, a substantial increase over the previous edition of 2016 (Gimenez et al., 2018). The figures themselves, however, tell only part of the story. The development of EMI in Brazil has always taken place within a diverse HE system, across different disciplines, regions, institutional profiles, student populations, and levels of access to English.

This expansion also coincided with important developments in language education within Brazilian universities. The *Languages without Borders* program, initially created in response to the linguistic demands exposed by international mobility, gradually developed a nationwide infrastructure for academic language education, teacher development, and institutional language policy. Within this environment, English for Academic Purposes and initiatives integrating language and disciplinary content became increasingly visible. Sarmento et al. (2021) describe

the program as an important space for reflecting on the relationship between additional languages, internationalization, and content-and-language integration, while also asking a question that remains central to this volume: under what conditions can the use of English create opportunities for participation rather than additional barriers?

Indeed, the expansion of EMI has made concerns about inclusion and equity more urgent. English can facilitate access to international literature, academic networks, professional communities, and the circulation of locally produced knowledge, and may provide students and lecturers with meaningful opportunities to use the language in authentic disciplinary practices. From this perspective, EMI has been associated with the potential to broaden participation in international academic life and to strengthen IaH (Baumvol & Sarmento, 2019). At the same time, the growing use of English may reproduce existing inequalities when access to the language, academic literacies, institutional support, and opportunities for participation is uneven. The relevant discussion, therefore, is not simply whether English should or should not be used in HE, but how, by whom, for whom, and under what conditions it is used. Addressing these issues requires attention to local languages and multilingual repertoires, disciplinary differences, teacher preparation, student needs, institutional responsibility, and the purposes attributed to internationalization itself.

Brazilian research has reflected this more critical and contextualized orientation. In their metasynthesis of publications produced between 2010 and 2020, Gimenez et al. (2021) found that the field was still marked by a strong presence of exploratory research, but also by a predominance of studies seeking to reconfigure, rather than simply accommodate, existing EMI practices. The perspectives mobilized included English as a lingua franca, decolonial approaches, multimodality, critical internationalization, and concerns with inclusion and inequality. The authors also called for more locally informed research addressing classroom practices, language support, teacher and student preparation, disciplinary variation, and collaboration between language and content specialists. Seen against this trajectory, the contributions collected in this volume suggest how far that research and pedagogical agenda have developed. They include large-scale and institutional studies alongside close examinations of classrooms, academic literacies, multilingual practices, teacher development, disciplinary communication, and collaborative pedagogies.

The scope of this volume also reflects the broader conception of integration that informed the 2025 conference. Its program brought together inclusion, language status and identity, language policies, the role of languages other than English, and diverse contexts of practice through research papers, experience reports, workshops, posters, and colloquia. The chapters developed from these conversations similarly resist reducing internationalized higher education to the replacement of one instructional language by another. Across different theoretical traditions and disciplinary settings, they foreground language as part of teaching, learning, interaction, knowledge construction, professional formation, and participation. It is from this perspective that the thirty chapters in this volume can be read, and that the four thematic movements presented below have been organized.

The volume is structured around four broad thematic movements, each bringing together chapters that engage with different, but closely interconnected, dimensions of integrating content and language in HE. The four groups reflect changes in analytical scale and emphasis, moving across policy, pedagogy, language, and disciplinary practice while keeping their interconnections visible. The volume moves from broader questions concerning internationalization, language policy, and inclusion to the experiences and professional development of lecturers; it then turns more closely to language, academic literacies, and disciplinary participation before reaching a final group of chapters centered on situated educational practices across different fields. These movements illustrate the multiple levels at which ICLHE, EMI, EME, and related approaches are shaped, negotiated, and enacted.

The opening group of chapters (1 to 6) situates EMI and content-and-language-integrated education within the broader landscape of “internationalization, language policy, and inclusion”. Beginning with questions about the purposes and beneficiaries of internationalization, these contributions draw attention to the political, institutional, linguistic, and epistemic conditions under which internationalized HE takes place. The discussion moves across geographical and analytical scales, from European language policy and the Bologna Process to patterns of scholarly collaboration and language use in Latin America and the Caribbean, and then to the Brazilian context through national, institutional, and student perspectives. Across these chapters, internationalization is presented as a process shaped by choices about languages, access, mobility, participation, and the distribution of opportunities, rather than simply by the expansion of international activities. Inclusion also draws attention to the inequalities that can accompany the growing presence of English in HE and to the institutional responsibility to prevent internationalization from reproducing existing forms of linguistic and educational privilege.

A second group turns more directly to “lecturers and the forms of support required for sustainable content-and-language integration.” Chapters 7 to 13 first examine the linguistic, emotional, professional, and institutional challenges experienced by academics teaching through English, including perceived language-support needs and teaching anxiety. They then move from diagnosis to possible responses, presenting different models of faculty development that combine language awareness, pedagogy, intercultural competence, academic literacies, mentoring, digital learning, and discipline-sensitive approaches. The contributions present professional development as a process grounded in sustained pedagogical reflection and institutional support, with attention to how expertise is shared between content and language specialists. This perspective also broadens the role of language educators, positioning them as collaborators in the construction of disciplinary, intercultural, and professional learning, and extending their contribution beyond ancillary linguistic assistance.

The focus then shifts to “language, academic literacies, and participation in disciplinary communities”. The chapters in this group (14 to 21) examine what it means to take the role of language in the construction and communication of disciplinary knowledge. They address multilingual classroom practices and translanguaging, disciplinary terminology, scientific writing, citation, genre knowledge, teacher education, and changing needs for academic and professional

communication. These concerns are connected by an understanding of language as constitutive of disciplinary participation, shaping how knowledge is constructed, communicated, and negotiated within academic fields. From this perspective, learning to participate in HE involves gaining access to ways of defining concepts, constructing arguments, positioning oneself in relation to other scholars, using disciplinary genres, and mobilizing different linguistic resources for specific purposes.

The final group (22 to 30) brings these concerns into “situated educational practices across disciplines”, offering accounts from health sciences, psychology, ethics, biomedical informatics, artificial intelligence, and physics. The chapters demonstrate the variety of forms that integration can assume when English becomes part of authentic disciplinary activity: discussing clinical laboratory problems, engaging with international scholarship, debating ethical dilemmas, designing technological solutions, modeling clinical reasoning, conducting experiments, or defending scientific arguments. Active learning, collaboration, authentic tasks, student agency, and partnerships between content and language specialists recur across these experiences, but are adapted to the epistemologies and communicative practices of particular fields. The final contributions deliberately expand the boundaries of the discussion. English is used as a bridge for learning Brazilian Portuguese in an international online course. At the same time, gastronomy is approached as a sensory and cultural form of meaning-making within the ICLHE conference itself. In this way, the volume closes by extending integration beyond English-medium disciplinary instruction and inviting a broader reflection on the diverse linguistic, semiotic, cultural, and embodied resources through which international encounters and knowledge-making can occur.

In the first chapter, Ana Luiza Pires de Freitas, Bernardo Sfredo Miorando, Julie Celine Walaszczyk, and Fernanda Correa Soldatelli question approaches to internationalization centered primarily on rankings, mobility, and institutional visibility. Drawing on a sustained collaboration between a Brazilian and a Belgian university, they propose a roadmap for glocally responsible internationalization organized around sustainability, horizontal internationalization, critical interculturality, language, and discourse as resources, transdisciplinarity, active methodologies, and virtual mobility. English is presented as a resource for dialogue, working alongside multilingual repertoires and diverse forms of knowledge in shaping academic participation. An interactive workshop held at the ICLHE 2025 Conference illustrates this perspective through reflection on linguistic landscapes, accessibility, sustainability, and social relations.

Moving to the policy level, Vesna Prodanovska-Poposka, Marija Todorova, and Tatjana Ulanska explore how European language policy and the Bologna Process have shaped higher education in North Macedonia. Their discussion brings together two complementary dimensions of European integration: the promotion of multilingualism and plurilingual competence, supported by instruments such as the CEFR, and the structural harmonization of HE through ECTS, the Diploma Supplement, comparable degrees, and mobility schemes. The authors examine how these frameworks have been incorporated into North Macedonia’s alignment with the European Higher Education Area, showing how language competence, academic mobility, qualification

recognition, and institutional cooperation intersect in internationalization. They also point to the continuing need for investment in language education, staff development, digital resources, and policy implementation. Cláudio França and Kyria Finardi turn to the relationship between scientific collaboration and publication language in research on HE internationalization in Latin America and the Caribbean. Using articles indexed in Scopus, Web of Science, and Lens between 2008 and 2023, they map co-authorship within and beyond the region and relate collaboration patterns to language choice and publication channels. Although co-authorship predominates, most collaboration remains nationally concentrated, while partnerships within Latin America and the Caribbean are comparatively limited. Intercontinental collaborations occur mainly with institutions in the United States, the United Kingdom, Spain, and Portugal and are predominantly published in English. Differences among databases also reveal how indexing policies affect the visibility of work in Spanish and Portuguese. The analysis thus connects scholarly collaboration to geopolitical and linguistic hierarchies and raises questions about regional integration, multilingual knowledge circulation, and persistent asymmetries in global academic publishing.

Drawing on a nationwide survey of 4,716 PhD-holding academics, Lucas Henrique Fogaça Marengo, Simone Sarmento, and Ana Beatriz Arêas da Luz Fontes investigate the relationship between English proficiency and EMI adoption across disciplinary fields in Brazilian higher education. The results reveal a clear gap between competence and practice: although respondents generally rate their English as intermediate to advanced, English is rarely used for classroom instruction, and proficiency is only weakly associated with EMI adoption. Disciplinary differences further suggest that EMI is shaped by the communicative traditions, international orientations, and epistemological cultures of particular fields. These findings challenge the assumption that greater language proficiency alone will expand EMI. Instead, the authors advocate an inclusive approach combining language support, pedagogical development, institutional policies, and attention to socioeconomic inequalities in access to English, while avoiding linguistic elitism and preserving local linguistic diversity.

Questions of access and inclusion are also central to Gabriel Salinet Rodrigues, Graciela Rabuske Hendges, and Juliana Michelon Ribeiro's analysis of EMI at the Federal University of Santa Maria. Combining institutional policy analysis with survey and interview data from EMI practitioners and interested lecturers, the authors identify a partial mismatch between institutional priorities and teachers' perspectives. While policy tends to associate internationalization with incoming mobility and the attraction of international students, lecturers also emphasize opportunities for local students to participate in internationalized academic practices. Two dimensions of inclusion consequently emerge: facilitating international students' participation and widening home students' access to additional-language literacies and experiences. Uneven English proficiency, limited institutional coordination, resistance to English, and insufficient pedagogical and language support remain important challenges.

The perspective of students comes to the foreground in Anderson Francisco Guimarães Maia, Rafael de Souza Timmermann, and Tatiane Lopes Moreira's study at the Federal University of Pará, situated within the distinctive linguistic, cultural, and socioeconomic context of Brazil's Northern Region. Using a mixed-methods questionnaire with undergraduate and postgraduate students who had participated in EMI and internationalization initiatives, the authors identify generally positive perceptions, mainly concerning academic development, linguistic confidence, and opportunities for IaH. These benefits coexist, however, with insecurity, anxiety, difficulties with technical vocabulary and oral production, and concerns about English as a marker of academic success. Limited institutional support further suggests that individual motivation alone cannot guarantee equitable participation.

A central paradox in Marie Vander Borght's comparative study of EMI teachers in Brazil and Sweden is that participants in both contexts were more likely to identify a need for English-language support among colleagues than for themselves. Based on survey data from 114 teachers in Brazil and 1,402 in Sweden, the study examines how perceptions of support are shaped by EMI implementation, disciplinary cultures, professional experience, linguistic backgrounds, and internationalization. Interpreted through the ROAD-MAPPING framework, the findings reveal contrasts between a highly internationalized Swedish context and a Brazilian setting in which more teachers report needing support. At the same time, shared tensions emerge around native-speaker ideologies, disciplinary uses of English, academic literacy, and translanguaging.

Mladen Marinac and Irena Vodopija-Krstanović turn attention to the emotional dimension of EMI by examining teaching anxiety among Croatian university lecturers who use English as an additional language. Drawing on interviews with 20 lecturers across four faculties, the study contrasts the confidence associated with teaching in the L1 with the more persistent insecurity experienced in EMI. Sources of anxiety include linguistic competence, vocabulary, spontaneous interaction, encounters with highly proficient English speakers, and the linguistic and cultural diversity of international students. These concerns also have pedagogical consequences, influencing grading, feedback, use of the L1, reliance on written materials, and classroom interaction. Lecturers therefore favor sustained, low-stakes forms of support, particularly peer collaboration and recurring opportunities to practice communicative skills.

How can universities move from isolated EMI initiatives to sustained institutional support? Marcelo Kremer addresses this question through a four-year faculty development project at the Federal University of Santa Catarina. Informed by previous diagnostic studies in Brazil and Portugal and by UFSC's internationalization priorities, the initiative responds to concerns about linguistic insecurity, pedagogical preparation, intercultural teaching, and fragmented institutional support. Its glocal orientation emphasizes adapting international models to the linguistic, cultural, and organizational realities of a Brazilian public university. The project combines needs analysis, modules on EMI pedagogy, academic communication and intercultural competence, mentoring, and communities of practice, with ongoing evaluation and refinement.

Patrick Studer, Paul Kelly, Nadja Sudalei Spillmann, Lisa Hüther-Pape, Nele Koehler, and Luis Raufeisen present the design of a six-unit e-learning course for EMI professional development developed collaboratively by ZHAW and the University of Freiburg. The initiative translates previous face-to-face training into a flexible format suitable for self-directed or blended learning. Grounded in a dialogic pedagogical framework, the course treats EMI as involving pedagogical, communicative, intercultural, and linguistic dimensions rather than simply a change in instructional language. The chapter discusses the macro- and micro-level design principles behind the units, including authentic tasks, reflection, interaction, and culturally responsive teaching, and illustrates these principles through the development of Unit 1. The result is a theoretically informed and practically adaptable model of digital professional development for lecturers working in multilingual and internationalized HE.

Ana Luiza Pires de Freitas, Cristina Kroeff Schmitz Gibk, and Cristina Nassar present EME in engineering as a process of pedagogical recalibration that integrates language, disciplinary content, and teaching practice. Their account is based on a 40-hour faculty development initiative for the Environmental Engineering Graduate Program at the Federal University of Rio de Janeiro. The program combines experiential learning and *loop input*, enabling participants to experience pedagogical strategies before adapting them to their own teaching. A central element is the 4-W approach — *Welcome, Warm up, Work out,* and *Wrap up* — used to structure interaction, activate prior knowledge, foster collaboration, and promote metacognitive reflection. The chapter follows the process from teacher development to curricular redesign, including an illustrative workshop and an EMI course in applied ecology.

Vinícius Oliveira de Oliveira brings Academic Literacies and Genre Studies into the discussion of EMI teacher development through an introductory course offered at the Federal University of Mato Grosso do Sul. Drawing on Lea and Street and on Swales's Genre Theory, he argues that EMI preparation should extend beyond English proficiency and methodological techniques to address how students participate in disciplinary discourse communities. The intensive course incorporated a student profile, an EMI lesson plan, and a syllabus, using genre as an organizing principle to connect learning objectives, interaction, assessment, and backward design. Participants' varying English proficiency and limited familiarity with academic literacy concepts posed challenges, but the activities also prompted reflection on established, often lecture-centered practices.

Ana Luiza Pires de Freitas, Julie Celine Walaszczyk, and Fernanda Correa Soldatelli reconsider the role of language educators in ICLHE, challenging their positioning as providers of auxiliary linguistic support. Their discussion draws on an online interculturality course jointly offered to Brazilian and European students, in which healthcare was approached as a culturally situated and communicative practice. The language teachers created spaces for dialogue on multilingualism, professional identities, inclusion and exclusion, and intercultural communication, with linguistic accuracy taking a secondary role. From this experience, the authors propose understanding language educators as designers of discursive spaces, mediators of intercultural and epistemic perspectives, and partners in professional formation.

Drawing on his experience teaching macroeconomics through English to Chinese undergraduates, Wenchao Liao reflects on the relationship between language, disciplinary knowledge, and pedagogy in EMI and CLIL. His account is structured around the metaphor of professional language as the “air”, students and their linguistic resources as the “soil”, and the course as the “plants” growing between them. Central to the discussion is the notion of “analytical as interesting”, which emphasizes disciplinary materials that are linguistically accessible, professionally meaningful, and intellectually engaging. Classroom examples illustrate the combined use of English and Chinese, vocabulary work, oral presentations, assessment, and career-oriented activities. Liao also considers translanguaging as a legitimate pedagogical resource, highlighting both the possibilities and tensions involved when content specialists assume responsibility for students’ disciplinary and academic language development.

Emmanuelle Pereira da Costa, Simone Sarmento, and Deise Prina Dutra examine translanguaging and language support in two undergraduate EMI courses in Dentistry and Business Administration at the Federal University of Minas Gerais. Interviews with the content teachers show how Portuguese and English are flexibly mobilized to support comprehension, address lexical difficulties, reduce anxiety, and encourage participation, although the lecturers differ in how explicitly they recognize these multilingual practices. The study also highlights collaboration between content teachers and language specialists through needs analysis and discipline-specific, corpus-informed materials. Building on these experiences, the authors propose an Integrated Support Model that incorporates language expertise into course design and delivery.

Juliana Monteiro dos Santos Almeida and Ana Eliza Pereira Bocorny address students’ ability to interpret and use disciplinary terminology when reading research articles in English. They present a collaboratively constructed bilingual digital glossary developed within an EAP course at a Brazilian public university. Based on Communicative Terminology and Functional Lexicography, the resource emphasizes contextual meaning, disciplinary specificity, user needs, and source reliability over simple English-Portuguese equivalence. Students select terms from articles in their own fields, construct entries, and revise them following instructor feedback. Analysis of 120 entries produced by 60 undergraduates shows a progression from translation-based definitions toward more contextually grounded and conceptually delimited formulations.

What happens when novice university students write science through a language that is not their first? Luciana Martiliano Milena and Danusa Munford investigate scientific articles produced in English by Brazilian first-year undergraduates in an interdisciplinary science course at the Federal University of ABC. Using rhetorical moves, epistemic levels, epistemic practices, and code-switching as analytical lenses, the study identifies shifts in style, register, and cultural reference, including creative titles and expressions associated with Anglophone contexts. The authors interpret these features as part of students’ negotiation of scientific rigor, identity, and authorship as they enter disciplinary discourse practices.

Simone Sarmento, Maria Eduarda Faleiro, Maria Eduarda Muller, and Roberta Wagner Ballejo investigate citation as a rhetorical and epistemic practice by comparing articles from the Brazilian *Revista Brasileira de Linguística Aplicada* and the internationally oriented *Applied Linguistics*. Corpus-based analysis reveals contrasting patterns: the Brazilian journal favors integral citations, direct quotations, and attributional frames such as “According to + author”, foregrounding individual scholars, whereas *Applied Linguistics* makes greater use of non-integral citations and reporting verbs such as *find* and *show*, emphasizing research findings. The authors interpret these differences as manifestations of distinct rhetorical and epistemological traditions rather than deficiencies in linguistic competence. Linking the findings to epistemic justice, they advocate academic writing pedagogy that enables students and scholars to recognize and strategically navigate different citation practices without positioning Global South traditions as inherently deficient.

Marcelo Concário reflects on content-language integration in an undergraduate Public Relations course at São Paulo State University, where English for professional and academic purposes is taught through disciplinary themes such as crisis management, ESG, PR strategies, and case studies. A recurring difficulty in students’ oral presentations led the author to make case-study methodology and its associated academic language explicit learning objectives. Classroom experiences from 2023 to 2025 included collaborative reading, discussion, academic reporting, and AI-assisted exploration of content and language. Yet even after explicit instruction, students did not identify their sources as case studies, prompting questions about traditional methodological expectations and contemporary engagement with extended academic texts.

Luciana Aguiar de Oliveira and Sandra Elisabeth de Oliveira Santos present *Plans in Action*, an optional course in a Portuguese-English teacher education program at the State University of Minas Gerais. The course uses a two-layer design: pre-service teachers first experience theme-, task-, or project-based lessons as language learners and then revisit them as prospective teachers, examining sequencing, methodological rationale, and pedagogical choices through English. An illustrative unit on time management shows how authentic materials, scaffolding, communicative activities, and “behind-the-scenes” analysis support both language development and pedagogical metalanguage. Instructor observations and informal feedback suggest increased awareness of lesson design and greater confidence discussing pedagogy in English.

Meggie Rosar Fornazari presents an ongoing study questioning whether English for Science and Technology courses at a Brazilian federal university adequately address the communicative demands faced by Science and Engineering students. The project investigates whether the traditional emphasis on reading specialized texts should be complemented by greater attention to speaking, listening, and writing. The planned longitudinal study at UTFPR combines Target-Situation and Present-Situation Analyses through questionnaires, interviews, classroom observations, research journals, and, where necessary, additional stakeholder perspectives. By comparing students’ current abilities with demands associated with publishing, conferences, academic exchanges, and professional interaction, the research seeks to determine whether local EST provision remains predominantly reading-oriented or is moving toward a more integrated model.

Ana Beatriz Gorini da Veiga, Tanira Alessandra Silveira Aguirre, Caroline Buss, Felipe Borges Almeida, Mauro Mastella, and Helena Maria Tannhauser Barros provide a multifaceted view of EME at the Federal University of Health Sciences of Porto Alegre (UFCSPA). Drawing on courses in Global Health, Neuroscience, Drug Delivery, Scientific Writing, and Personal Financial Planning, the authors illustrate the different disciplinary and pedagogical purposes English can serve within a single institution. Across these experiences, students gain access to international literature and terminology while developing confidence for academic and professional communication. The emphasis lies on intelligibility rather than linguistic perfection, with English as a Lingua Franca principles and, in some contexts, multilingual practices involving English, Portuguese, and Spanish. Challenges include heterogeneous proficiency, assessment, anxiety, and limited availability of instructors.

Helena Schirmer, Vanessa Suñé Mattevi, and Sandrine Comparsi Wagner trace the pedagogical development of *Talks in Clinical Lab*, an elective course at UFCSPA combining EMI, clinical laboratory education, and IaH. Initially organized around expert-led lectures and questions inspired by international professional certification, the course gradually shifted toward greater student participation after lecturers observed limited oral interaction. Across ten editions, student-led discussions, activities linking popular media to health sciences, and low-pressure icebreakers were introduced to scaffold communication without reducing disciplinary rigor. English consequently became embedded in authentic scientific and professional practices. Based on classroom observation and informal feedback, the authors suggest that this redesign helped foster laboratory reasoning, communicative confidence, and professional identity.

Ana Luiza Pires de Freitas and Ana Cláudia Souza Vazquez describe one of UFCSPA's early undergraduate EME courses, devoted to Positive Organizational Psychology and workers' health. Students explored concepts such as burnout, engagement, and well-being while engaging directly with international scholarship in English. Problem-based learning, conceptual mapping, reflective writing, group activities, critical discussion, and interaction with guest scholars created an active and collaborative learning environment. A distinctive aspect of the course was the partnership between disciplinary and language expertise, with English functioning as a resource for inquiry and scholarly participation rather than as an object of study. The authors show how this collaboration supported academic autonomy and disciplinary identity while creating opportunities for students to participate in international academic conversations and experience IaH.

Ethical reasoning depends on the ability to articulate, justify, question, and reconsider positions in dialogue with others. Ana Luiza Pires de Freitas and Ana Carolina da Costa e Fonseca build on this premise in two EME seminars at UFCSPA, *On the Book Justice* and *Ethics & Movies*. Through moral dilemmas, philosophical frameworks, films, debates, argumentative writing, peer feedback, and student-led discussions, health sciences students practiced ethical deliberation through English. Linguistic accuracy was not the primary criterion; emphasis was placed on reasoning, responsiveness to alternative perspectives, and clear communication of complex positions. The courses also brought an ethics specialist and a language educator together as epistemic partners.

Talks About Healthcare Software, developed by Ana Luiza Pires de Freitas and Juliana Silva Herbert at UFCSPA, integrates EME with the disciplinary practices of Biomedical Informatics. Offered to postgraduate students, the course addresses technologies such as artificial intelligence, telehealth, robotics, virtual and augmented reality, and data privacy while also considering digital inclusion, equity, and responsible innovation. Authentic tasks, collaborative activities, international guests, peer feedback, and a final symposium connect technological knowledge with local healthcare challenges and the Sustainable Development Goals. Its online development further expanded opportunities for international participation. Collaboration between content and language specialists supports both disciplinary learning and academic communication, illustrating how English can become part of the communicative practices of a field.

Johanna Billig, Melissa Fortes, and Silvio Cesar Cazella bring together artificial intelligence, healthcare, and English-language development in a collaboratively taught postgraduate course at UFCSPA. Working with Expert SINTA, students transformed clinical reasoning into explicit computational rules to address authentic healthcare problems, simultaneously engaging with disciplinary concepts, specialized terminology, and academic English. Oral presentations and reflective reports extended this work by requiring students to explain and justify their projects while receiving complementary feedback from AI and language specialists. The experience highlights the benefits of team teaching for students and lecturers, whose collaboration encouraged reflection across disciplinary boundaries.

Pierre-Louis de Assis and Leandro Tessler describe an initiative at the University of Campinas that prepares undergraduate and master's students for the International Physicists' Tournament through EMI and problem-based learning. Participants investigate open-ended physics problems, engage critically with scientific literature, conduct experiments, develop models, analyze data, and defend their solutions in presentations and live scientific debates conducted in English. Instructors act primarily as mentors and project managers, moving away from more teacher-centered forms of physics education. English likewise functions as a tool for authentic scientific communication and not as an object of formal instruction, with successful interaction taking precedence over linguistic accuracy.

Luciane Sturm, Cleo Pletsch, and Jancileidi Hübner offer an unconventional use of EME through an introductory Brazilian Portuguese course for students at Wrocław University of Science and Technology. Here, English serves not as the medium for disciplinary content but as a shared resource enabling beginners to access another language and culture. Participants' feedback and classroom observations indicate that English helped reduce anxiety, support comprehension, and encourage engagement, while also revealing tensions between the accessibility it provided and students' desire for greater exposure to Portuguese. The initiative connected Polish students with Brazilian language and culture while giving Brazilian undergraduate and postgraduate students supervised experience in multilingual teaching.

The volume closes by moving beyond verbal language altogether. Laura von Hoonholtz Barreto, Leandro Frosi, Antônia Kneipp Cargnelutti, and Ana Luiza Pires de Freitas examine

gastronomy as cultural mediation during the 2025 ICLHE Conference in Southern Brazil. The menu created by Açafrão Jr., UFCSPA's student-run Gastronomy enterprise, was conceived as part of the event's communicative and cultural experience, combining Brazilian and regional culinary traditions with contemporary reinterpretations and concerns with inclusion and sustainability. Through dishes incorporating ingredients and practices associated with different dimensions of Brazilian food culture, gastronomy emerges as a sensory and affective semiotic resource capable of communicating identity, territory, memory, and hospitality. The chapter broadens the notion of internationalization by showing how intercultural encounters may also be produced through embodied experiences and student-led cultural practices.

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Part I

Internationalization, Language Policy, and Inclusion

1. English as a Medium of Education in Internationalization: For What and for Whom? A Roadmap for Teaching Glocally

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Abstract: Internationalization in higher education is often celebrated as advancement, yet it is still predominantly measured through rankings, mobility flows, and symbolic global visibility. Such metrics risk obscuring deeper pedagogical and epistemic questions: internationalization for what purposes - and for whom? Within this landscape, English-Medium Education can either reinforce linguistic hierarchies and North-South asymmetries or become vehicles for more dialogical and inclusive practices. Drawing on Dafouz and Smit's (2020) ROAD-MAPPING framework and Stallivieri's (2019) notion of balanced and horizontal internationalization, we present a co-constructed roadmap developed through a sustained South-North collaboration between a Brazilian and a Belgian university. Organized around seven interrelated signposts - sustainability, balanced and horizontal internationalization, critical interculturality, language and discourse as resources, transdisciplinarity, active methodologies, and virtual mobility - the roadmap operates as a critical and action-oriented lens for rethinking curriculum design, linguistic inclusion, and epistemic positioning. To illustrate its pedagogical enactment, we examine an interactive workshop delivered at the ICLHE 2025 Conference, in which participants engaged in collaborative activities designed to interrogate assumptions about language, internationalization, and knowledge production. We argue that internationalization should move beyond institutional branding and mobility metrics toward ethically grounded, pedagogically sustained, and glocally accountable educational practices.

Keywords: Critical Internationalization, Integrating Content and Language in Higher Education (ICLHE), South-North Collaboration, Glocally Responsible Pedagogy.

Internationalization, ICLHE, and EME: From Assumption to Interrogation

Internationalization in higher education is often framed as a marker of progress, commonly measured through mobility, global rankings, and institutional visibility (de Wit & Hunter, 2015). When reduced to such indicators, however, it risks becoming a technocratic objective rather than a pedagogical transformation (Leask, 2015). This framing tends to obscure key epistemic and ethical questions: how is internationalization enacted in the curriculum, whose knowledge circulates as universal, which languages are legitimized in academic communication, and who remains peripheral in supposedly global spaces?

Decolonial perspectives highlight that higher education systems are historically shaped by colonial matrices of power that continue to structure knowledge production and linguistic hierarchies (Quijano, 2000; Mignolo, 2011; Heleta & Chasi, 2023). Within this landscape, English functions not only as a medium of communication but also as an epistemic filter through which legitimacy is negotiated. The global expansion of English-medium programs, while enabling mobility and collaboration, may reinforce global asymmetries if not critically examined (Lasagabaster, 2022). We understand that academic exchange has been patterned by historically structured systems of knowledge production and institutional power which position nations into a core - represented

by the Global North - and its peripheries - represented by the Global South (Santos, 2017; Prebisch, 2011; Wallerstein, 2004).

The global expansion of English-medium programs, while enabling mobility and collaboration, may reinforce asymmetries between the Global North and South - understood here as historically structured positions within unequal systems of knowledge production and institutional power - if not critically examined (Lasagabaster, 2022; Santos, 2017). In this sense, internationalization risks privileging epistemic alignment over dialogue (Guimarães et al., 2019).

English-Medium Education (EME) and Integrating Content and Language in Higher Education (ICLHE) must be understood within this tension. They are not neutral pedagogical tools: they can reproduce processes of Englishization and symbolic dependency, but they can also support multilingual awareness, more balanced academic exchanges, and dialogically structured learning (Dafouz & Smit, 2020). Their effects depend on how intentionally they are designed and enacted (Ribeiro, 1975).

In response to these challenges, this chapter approaches internationalization as an ethical and curricular question. Drawing on Dafouz and Smit's (2020) ROAD-MAPPING framework and Stallivieri's (2019) notion of balanced and horizontal internationalization, we present a roadmap co-constructed through a sustained South-North collaboration, detailed ahead. The roadmap has informed a range of collaborative initiatives, including faculty development activities and an interactive workshop delivered at the ICLHE 2025 Conference. Through these experiences, we explore how internationalization can move beyond institutional branding toward ethically grounded and glocally accountable educational practices.

Rather than offering a prescriptive model, the roadmap operates as a heuristic for interrogating assumptions about language, knowledge, sustainability, and international engagement in higher education. From a glocal perspective, global agendas are always interpreted and recontextualized within specific institutional, cultural, and geopolitical contexts (Robertson, 1995). Within this perspective, ICLHE and EME become sites of negotiated knowledge production and shared responsibility.

The sections that follow introduce the roadmap, discuss its seven signposts, and illustrate its enactment through pedagogical practice. In doing so, the chapter offers a framework for rethinking internationalization as dialogical, relational, and socially responsive work, while outlining implications for ICLHE and EME scholarship.

A Roadmap: Seven Signposts Toward Glocal Internationalization

The roadmap presented in this chapter emerged from a sustained partnership between the Universidade Federal de Ciências da Saúde de Porto Alegre (UFCSPA), Brazil, and the Université de Mons (UMONS), Belgium. Initiated in 2020 during the COVID-19 pandemic, the collaboration has involved virtual exchange projects, faculty development initiatives, joint research, and curriculum design activities aimed at fostering more equitable and reflexive

approaches to internationalization. Over time, these shared experiences led us to identify a set of interconnected principles that could guide pedagogical decision-making across diverse educational contexts. Although informed by existing scholarships, the roadmap emerged primarily through collaborative practice. Rather than prescribing solutions, it offers a critical lens through which educators can examine assumptions about language, knowledge, sustainability, and international engagement in higher education.

Our decision to adopt the metaphor of a roadmap was deliberate. A roadmap does not determine a destination, nor does it eliminate uncertainty. Instead, it offers orientation while acknowledging that pathways remain contingent, negotiated, and open to revision. This understanding is particularly important at a moment when internationalization agendas are increasingly shaped by global challenges such as climate change, social inequalities, geopolitical tensions, and digital transformation. Likewise, although the Sustainable Development Goals (United Nations, 2015) continue to provide an important framework for collective action, their uneven implementation and the limited progress achieved in several areas invite a more critical engagement with their assumptions and implications as the 2030 horizon approaches.

The roadmap is organized around seven interconnected signposts: sustainability, balanced and horizontal internationalization, critical interculturality, language and discourse as resources, transdisciplinarity, active methodologies, and virtual mobility. Together, these signposts support educators in examining how global commitments translate into local curricular practices and how internationalization can become more dialogical, inclusive, and socially responsive. It resonates particularly with ecological approaches such as ROAD-MAPPING (Dafouz & Smit, 2020), which situate English-medium education within broader institutional and sociocultural contexts, as well as with academic literacies perspectives (Lea & Street, 1998), which emphasize the role of discourse in knowledge construction.

The seven signposts presented below should therefore be understood not as prescriptions, but as invitations to collective reflection and action. They continue to evolve through the ongoing dialogue, collaboration, and mutual learning that characterize our South-North partnership.

1. Sustainability and the SDGs: From Rhetoric to Curriculum

The first signpost situates internationalization within broader commitments to sustainability and social responsibility. While the United Nations 2030 Agenda and the Sustainable Development Goals (SDGs) continue to provide an important framework for addressing contemporary global challenges, their uneven implementation invites critical reflection on how such commitments are translated into educational practice.

Rather than treating sustainability as a thematic addition to the curriculum, we approach it as an ethical and epistemic orientation that informs how knowledge is produced, shared, and mobilized. Drawing on Andreotti's (2011) distinction between "soft" and "critical" approaches to global citizenship education, sustainability is understood not as the promotion of benevolent

global awareness, but as the cultivation of pedagogical and institutional practices capable of interrogating structural inequalities, historical asymmetries, and relations of power.

From this perspective, sustainable education extends beyond environmental concerns to encompass social justice, inclusion, equity, and long-term institutional responsibility. In our South-North partnership, sustainability is approached as a shared endeavor rather than a developmental agenda flowing from North to South. It serves as a lens through which educators can critically examine the purposes of internationalization and consider how teaching, learning, and collaboration may contribute to more socially responsive and globally accountable forms of higher education.

2. Balanced and Horizontal Internationalization

Internationalization is often guided by competitive indicators such as rankings, mobility flows, and institutional prestige (de Wit & Hunter, 2015). While these measures may enhance global visibility, they can also reinforce asymmetrical structures that privilege certain centers of knowledge production while marginalizing others. From a decolonial perspective, such dynamics reflect broader patterns of epistemic inequality that shape whose knowledge is recognized, legitimized, and circulated internationally (Quijano, 2000; Mignolo, 2011).

Drawing on Stallivieri's (2019) notion of balanced and horizontal internationalization, this signpost understands international collaboration as a process of reciprocity, dialogue, and co-construction. Rather than positioning institutions in the Global South as recipients of expertise, it recognizes them as active contributors to knowledge production and innovation (Mollis, 2002). This perspective requires moving beyond access and representation to critically examine whose voices, languages, and epistemologies are privileged within internationalization processes.

Within our partnership, balanced internationalization is enacted through shared curricular design, mutual learning, and recognition of contextual expertise. The collaboration has also functioned as a space for critical reflexivity, where participants continuously examined not only assumptions about each other's institutional, linguistic, and cultural realities but also those embedded in their own practices. This reciprocal process helped deconstruct taken-for-granted understandings of internationalization itself, reinforcing the view that knowledge is enriched through dialogue among diverse perspectives rather than transferred unidirectionally from one context to another. Internationalization thus became the collaborative construction of practices that are locally grounded, globally connected, and mutually transformative.

3. Interculturality as Reflexive and Critical Practice

This signpost approaches interculturality as a reflexive and critical practice concerned with how power, knowledge, and identity are negotiated across cultural differences. Grounded in decolonial perspectives (Quijano, 2000; Mignolo, 2011) and Walsh's (2009) notion of critical

interculturality, it challenges essentialist understandings of culture as fixed or homogeneous and instead recognizes culture as dynamic, relational, and continuously constructed through social interaction and discourse (Kramsch, 1998).

Against this backdrop, intercultural engagement involves more than recognizing difference; it requires examining how historical inequalities, institutional structures, and dominant narratives shape whose voices are heard and whose knowledge is legitimized. It also calls attention to the ways binary categories such as North/South, developed/developing, or native/non-native may influence academic relationships and internationalization practices.

In our work, critical interculturality complements the development of intercultural competence (Deardorff, 2006) by emphasizing reflexivity, epistemic humility, and the capacity to engage constructively with ambiguity and difference. Within the UFCSPA-UMONS partnership, this has meant fostering dialogue across linguistic, disciplinary, and cultural boundaries while resisting essentialist assumptions about national, institutional, or regional identities. In this sense, interculturality is understood not as the mastery of cultural knowledge, but as an ongoing practice of listening, negotiating meaning, and building relationships grounded in mutual respect and reciprocity.

4. Language and Discourse as Resources

This signpost addresses the role of English in higher education. English as a Medium of Education (EME) can function either as a bridge to participation or as a gatekeeping mechanism (Macaro et al., 2018). The difference lies not in the language itself, but in how it is conceptualized, institutionalized, and pedagogically enacted.

In our context, English operates as a shared communicative resource that intentionally facilitates dialogue across institutional and cultural boundaries, connecting academic communities whose institutional languages are Portuguese and French. Importantly, English is not treated as a marker of epistemic authority, but as a pragmatic means of enabling reciprocal exchange while recognizing the equal legitimacy of knowledge produced across different linguistic contexts.

Rather than treating it as a substitute for local languages or as a neutral vehicle for knowledge transmission, we understand English as a space of interaction, negotiation, and participation. Informed by English as a Lingua Franca scholarship (Jenkins, 2006; Mauranen, 2012) and academic literacies research (Lea & Street, 1998), language is conceptualized as both communicative and epistemic. Discourse is not merely the expression of knowledge; it is one of the sites where knowledge is constructed, legitimized, and contested.

Consequently, adopting EME entails more than a change of linguistic code. It requires rethinking assumptions about language proficiency, communicative competence, and academic participation. Rather than privileging conformity to idealized norms, emphasis is placed on mutual intelligibility, collaborative meaning-making, and the ability to engage effectively in disciplinary and intercultural contexts. Linguistic diversity, translanguaging practices, and multilingual repertoires

are understood as resources that can expand participation rather than obstacles to overcome (Canagarajah, 2011; García, 2009).

Building on sociocultural perspectives on learning (Lave & Wenger, 1991; Wenger, 1998), participation in academic communities is understood as a socially situated process. Language is therefore not simply a tool for communicating knowledge but one of the means through which membership, identity, and legitimacy are negotiated within academic and professional communities. This understanding aligns with EME and ICLHE approaches that recognize the inseparability of language and content, creating opportunities for learners to engage with disciplinary knowledge while participating in the discursive practices through which such knowledge is produced and shared.

Repositioning language and discourse as resources rather than standards to approximate is therefore more than a linguistic shift. It is an epistemic one. Understanding English as a shared communicative resource rather than as a gatekeeping norm enables internationalization to move from assimilation toward negotiated participation - a move that is essential to the balanced and horizontal collaboration envisioned in this roadmap.

5. From Siloed Perspectives to Interdisciplinary Thinking

Contemporary challenges such as wicked problems (Klein, 2021; Rittel & Webber, 1973), climate change, pandemics, social inequality, and democratic instability transcend disciplinary boundaries and require forms of knowledge production capable of addressing complexity. Internationalization can contribute to this process by fostering encounters across disciplinary, linguistic, and cultural perspectives, encouraging educators and students to engage with problems that resist linear or single-discipline solutions.

Framed by interdisciplinary approaches (Klein, 2010; Repko et al., 2020), this signpost moves beyond the coordination of disciplinary perspectives toward the co-construction of knowledge across epistemic boundaries. Rather than asking how disciplines can simply collaborate, it invites reflection on how different ways of knowing may interact, challenge one another, and generate new understandings of complex issues.

Within the UFCSPA-UMONS partnership, interdisciplinarity has emerged through the intersection of education, applied linguistics, health sciences, and internationalization studies. Designing faculty development initiatives and collaborative projects requires continuous negotiation of concepts, methodologies, and disciplinary assumptions. In this process, language and discourse function as mediating resources that enable dialogue across fields and support the emergence of new pedagogical and conceptual possibilities.

From this angle, internationalization becomes more than an additional layer within existing curricula. It becomes a catalyst for epistemic integration, encouraging systemic thinking, reflexive collaboration, and engagement with complex global challenges through multiple and interconnected lenses.

6. Active Methodologies and Dialogical Learning

If internationalization is enacted primarily through transmissive teaching, it risks reproducing both linguistic insecurity and epistemic dependence. Students may be exposed to global content without being invited into meaningful participation, reducing internationalization to observation rather than experience. This signpost therefore foregrounds active methodologies as a pedagogical and ethical commitment to participation, dialogue, and shared knowledge construction.

Drawing on Dewey's (1938) conception of learning through inquiry and Freire's (2006) critique of banking education, learning is understood as a socially situated and dialogical process. Rather than positioning students as recipients of knowledge, active methodologies invite them to engage in interpretation, collaboration, problem-solving, and critical reflection. Approaches such as problem-based learning, collaborative inquiry, project-based work, and dialogical seminars create opportunities for learners to participate in the negotiation of meaning that characterizes both academic and professional communities.

Viewed through this lens, participation becomes central to learning. Students are encouraged to engage with uncertainty, encounter diverse perspectives, and reflect on how knowledge is shaped by disciplinary, cultural, and social contexts. At the same time, educators assume the role of facilitators and mediators who design learning environments that support interaction, scaffold participation, and foster equitable engagement across linguistic and cultural differences.

Within our work, active methodologies have also informed collaboration among educators from different disciplinary backgrounds. The co-design of learning experiences has reinforced the view that internationalization is not achieved through exposure alone, but through structured opportunities for dialogue, co-construction, and shared responsibility. In this sense, active learning becomes both a pedagogical practice and a model for collaborative internationalization.

7. Virtual Mobility and Digital Equity

Internationalization has traditionally privileged physical mobility as a primary indicator of global engagement (de Wit, 2016). While valuable to a certain extent, such opportunities have always been unevenly distributed, shaped by economic, geographic, and social constraints. Virtual mobility offers alternative pathways for international collaboration, expanding access while reducing some of the financial and environmental barriers associated with physical exchange.

Practices such as Collaborative Online International Learning (COIL) and other forms of virtual exchange have demonstrated that meaningful internationalization can occur through sustained, technology-mediated collaboration (Rubin, 2017; O'Dowd, 2018). However, virtual mobility is not inherently equitable. Unequal access to digital infrastructure, institutional support, and technological resources can reproduce existing forms of exclusion. For this reason, virtual mobility must be approached not simply as a technological solution, but as a pedagogical and institutional commitment to inclusion and accessibility.

When intentionally designed, virtual exchange can foster intercultural dialogue, collaborative learning, and sustained engagement across linguistic, cultural, and disciplinary boundaries. It also creates opportunities for broader participation, enabling entire cohorts rather than a select few individuals to engage in international experiences. Through the UFCSPA-UMONS partnership, virtual and hybrid initiatives have played a central role in expanding access to internationalization and embedding cross-border collaboration within the curriculum.

In this sense, virtual mobility is not a substitute for internationalization but a reconfiguration of its possibilities. It invites educators and institutions to rethink how international engagement can be made more accessible, inclusive, and sustainable while cultivating the digital, intercultural, and collaborative literacies required in contemporary academic and professional life.

The roadmap as a whole

The seven signposts presented here are deeply interconnected. Sustainability requires critical intercultural engagement, interculturality depends on linguistic and discursive awareness, interdisciplinary collaboration relies on dialogical learning, and virtual mobility expands opportunities for participation while foregrounding questions of equity and access. Together, these signposts form a flexible framework for reflecting internationalization as a pedagogical, ethical, and relational process. They should be understood not as prescriptions, but as invitations to collective reflection and action. They continue to evolve through the ongoing dialogue, collaboration, and mutual learning that characterize our South-North partnership. Rather than functioning as a checklist, the roadmap operates as a set of orienting questions to support glocally responsive curriculum design and international collaboration.

The following section illustrates how these principles emerged and evolved through the UFCSPA-UMONS collaboration, informing internationalization initiatives across institutional contexts.

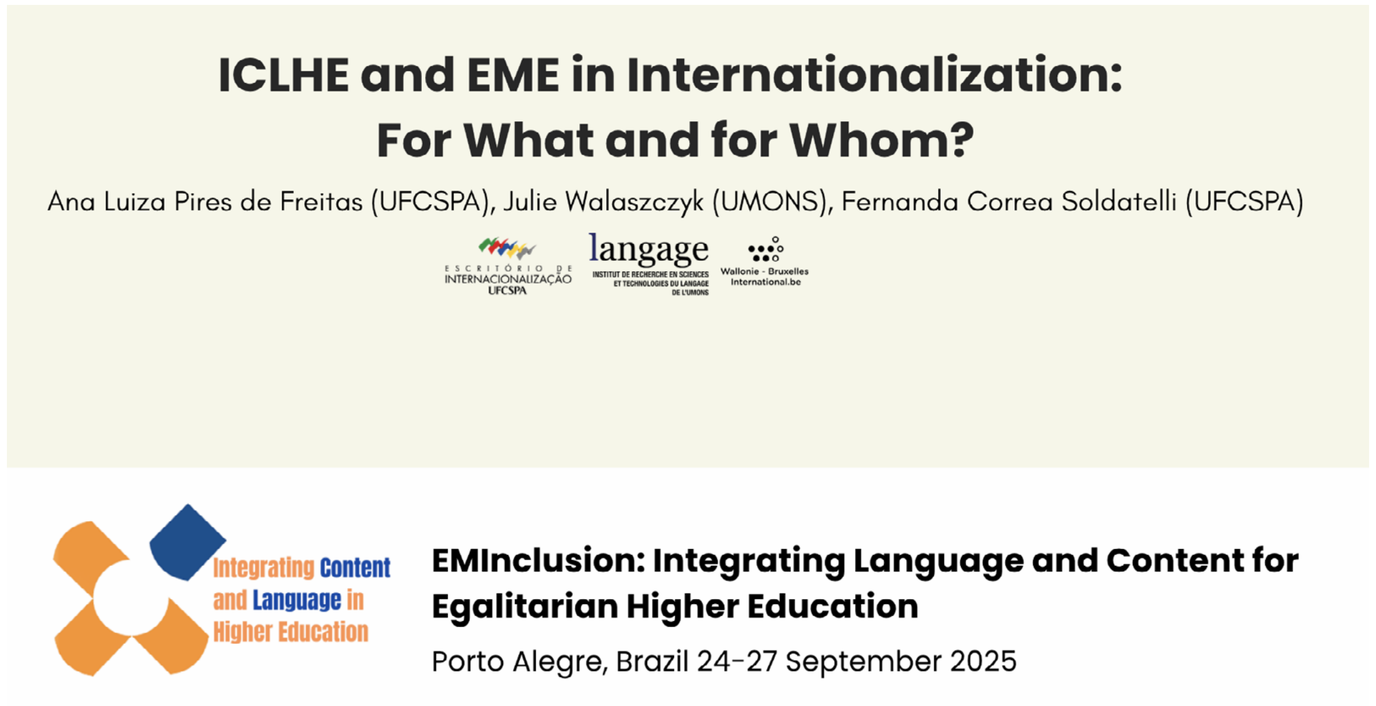
Enacting the Roadmap at the ICLHE 2025 Conference

Along the years of our inter-university collaboration, the roadmap described in this chapter has been experienced through different interactive activities; the one described next was enacted through an interactive workshop delivered at the 8th International Conference on Integrating Content and Language in Higher Education (ICLHE 2025), held in Porto Alegre, Brazil. The workshop invited participants to experience a series of collaborative and reflective tasks designed to foreground internationalization as a pedagogical, ethical, and relational practice.

The session brought together academics from diverse disciplinary, linguistic, and national backgrounds. Following a brief discussion of dominant assumptions surrounding internationalization, participants engaged in activities that explored how language, culture, sustainability, and knowledge production intersect in everyday academic environments. Throughout the workshop,

emphasis was placed on dialogue, co-construction of meaning, and critical reflection rather than on the transmission of predetermined content (Freire, 2006; Vygotsky, 1978).

Figure 1. Workshop Template



One of the central tasks focused on the concept of linguistic landscapes. Participants were introduced to the idea that public spaces communicate values, identities, and power relations through both linguistic and non-linguistic signs (Landry & Bourhis, 1997; Shohamy & Gorter, 2009). They were then invited to leave the workshop room and explore the university campus, documenting images that they believed represented internationalization, inclusion, diversity, sustainability, or institutional identity.

Working in small groups, participants photographed and analyzed a wide range of artifacts, including multilingual signs, accessibility resources, sustainability campaigns, political messages, institutional symbols, and student-produced materials. Upon returning to the workshop space, groups shared and interpreted their images collectively, discussing what forms of internationalization were made visible, which voices appeared to be represented, and which remained absent.

Figure 2. Participants' photographs-1.

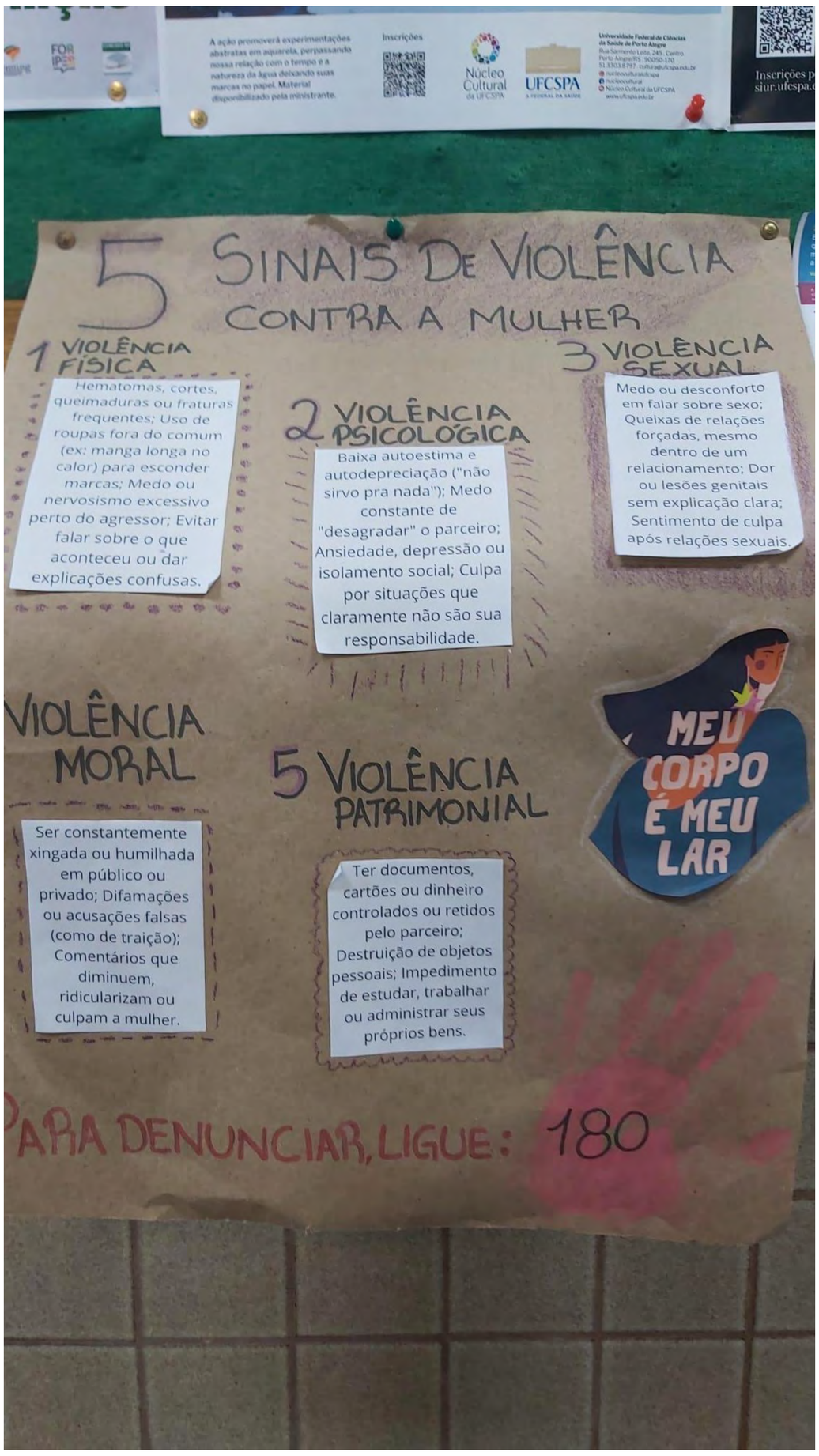


Figure 3. Participants' photographs-2.

The activity transformed the campus into an object of inquiry (Kolb, 1984). Participants became interpreters of the university's discursive environment, examining how institutional values are communicated through everyday spaces. The exercise revealed that, beyond policy documents and administrative strategies, internationalization has materialized through language, symbols, practices, and social relations.

Several recurring themes emerged from the discussions. Participants identified evidence of commitments to accessibility, inclusion, sustainability, and social justice, while also reflecting tensions surrounding visibility, representation, and belonging and participation in higher education (Leask, 2015). Internationalization was frequently interpreted not as the presence of English or international partnerships alone, but as the capacity of institutions to engage meaningfully with diversity, global challenges, and multiple forms of knowledge through a glocal perspective that connects local realities with global concerns (de Wit & Hunter, 2015; Leask, 2015).

The workshop also highlighted the interconnected nature of the roadmap's seven signposts. Discussions of sustainability often led to questions of interculturality and social justice. Reflections on language extended beyond English to broader issues of participation, voice, and epistemic legitimacy. Considerations of internationalization frequently intersected with concerns about equity, accessibility, and institutional responsibility. In this way, participants experienced the signposts not as separate categories but as mutually constitutive dimensions of educational practice.

Importantly, the workshop did not seek to provide definitive answers about how internationalization should be implemented. Instead, it created opportunities for participants to interrogate assumptions, compare perspectives, and reflect on their own institutional contexts to organize their pedagogical action. The roadmap functioned less as a model to be followed than as a heuristic for critical inquiry (Freire, 2006).

The experience reinforced a central premise of this chapter: internationalization gains educational value when it moves beyond mobility metrics, language policies, and symbolic global engagement to become a space for dialogue, reflexivity, and collective meaning-making (Leask, 2015; Stein et al., 2016). By examining their immediate surroundings through a critical lens, participants were invited to reconsider a question that has guided both the roadmap and the broader UFCSPA-UMONS collaboration: Internationalization for what, and for whom?

Implications for ICLHE and EME

The experience described in this chapter suggests that internationalization is neither inherently emancipatory nor inherently exclusionary. Rather, it constitutes a field of negotiation in which language, knowledge, and power intersect in complex ways. Whether internationalization reinforces existing hierarchies or creates opportunities for more equitable participation depends largely on how it is conceptualized and enacted within institutional and pedagogical contexts.

The roadmap, and the Linguistic Landscape workshop discussed here point to the importance of approaching internationalization as a pedagogical and ethical project rather than as a primarily logistical or reputational endeavor (Leask, 2015; Stein, 2019). Across that experience, internationalization emerged not as the circulation of predetermined models but as an ongoing process of dialogue, reflexivity, and collaborative knowledge construction. The emphasis on sustainability, critical interculturality, language and discourse, interdisciplinarity, and active learning reflects a broader commitment to understanding internationalization as a relational practice grounded in shared responsibility. In this sense, the question of internationalization for what and for whom is answered not through universal prescriptions but through a commitment to expanding opportunities for participation, recognition, and collaborative knowledge production, for everyone who is interested in it, and to make higher education more responsible in building a fairer world.

For ICLHE and EME scholarship, this perspective invites a shift from questions of implementation alone toward questions of purpose and positioning (Stein, 2019; Buckner & Stein, 2020). Discussions about language use, curriculum design, and international collaboration cannot be separated from broader concerns regarding epistemic legitimacy, participation, and social justice. English may facilitate communication across contexts, but its educational value depends on the extent to which it expands rather than restricts opportunities for engagement and knowledge production (Jenkins, 2015; Smit, 2018).

The experience reported here also suggests that faculty development can play a central role in fostering more balanced forms of internationalization. When educators critically examine assumptions about language ownership, disciplinary expertise, and institutional positioning, internationalization becomes more than an institutional strategy. It becomes a space for rethinking how higher education responds to linguistic diversity, global interdependence, and persistent forms of inequality.

Ultimately, the question is not whether internationalization should occur, but how and for whom it is enacted. Approached critically and collaboratively, internationalization can move beyond symbolic global engagement toward forms of teaching and learning that foster equitable participation, recognize epistemic diversity, and support more dialogical, inclusive, and socially responsive educational practices.

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2. Aligning With Europe Through Language Policy, Bologna and the Internationalization of Higher Education in North Macedonia

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Abstract: Europe is characterized by remarkable cultural and linguistic diversity, with more than 250 languages spoken across the continent. The European Union (EU) promotes this diversity through a language policy that values multilingualism, language proficiency, and respect for linguistic and cultural plurality. At the same time, the Bologna Process seeks to harmonize higher education systems by facilitating academic cooperation, mobility, and degree comparability. Although they follow different approaches, both initiatives contribute to the shared goal of internationalizing higher education. This paper examines the relationship between European language policy and the Bologna Process, focusing on their combined influence on the internationalization of higher education in North Macedonia, a candidate country for EU membership. It outlines the principles and key instruments of both frameworks and discusses how they support international cooperation and educational integration. The European language policy provides the communicative foundations for mobility and collaboration through instruments such as the Common European Framework of Reference for Languages (CEFR) and the promotion of multilingualism. The Bologna Process complements this by establishing structural mechanisms, including the European Credit Transfer and Accumulation System (ECTS), the Diploma Supplement, and joint degrees, which facilitate student and staff mobility, institutional cooperation, and the recognition of qualifications. The paper argues that, despite their distinct objectives and instruments, European language policy and the Bologna Process are mutually reinforcing. Together, they create the linguistic and structural conditions that foster the internationalization of higher education and support North Macedonia's integration into the European Higher Education Area.

Keywords: European language policy, multilingualism, Bologna Process, internationalization, higher education, North Macedonia.

Introduction

A critical factor in shaping language policy is the need to acquire foreign language skills. This necessity arises in many areas of everyday life, such as the development of international relations, diplomacy, foreign trade, mobility of scientific personnel, translation of scientific and artistic literature, and the education system (e.g., student mobility). Foreign language knowledge is increasingly regarded as economic capital rather than strictly cultural wealth for an individual, as it represents one of the most important skills considered by employers during the hiring process. Therefore, investing in foreign language learning benefits both individuals and society as a whole (Beadle et al., 2015). As noted by the European Commission (2016), language competences are indispensable for mobility, cooperation, and mutual understanding across borders (see also Beadle et al., 2017). Mobility and internationalization are among the key aspects of the Bologna Process, a reform of higher education that leads towards internationalization. The comparison between the European Union and the United States serves to highlight two contrasting approaches to linguistic diversity. While the United States has historically relied on English as the dominant language in public life despite its multilingual population, the European

Union has adopted multilingualism as a fundamental value, recognizing all official languages of its Member States and actively promoting linguistic diversity through education and policy. This distinction provides an important context for understanding why language policy occupies such a central place in the European integration process. Alongside these language policy developments, the Bologna Process, launched in 1999 through the Bologna Declaration signed by ministers from 29 European countries, introduced a common framework for higher education based on comparable degree structures, quality assurance, academic mobility, and mutual recognition of qualifications. Although the European Language Policy and the Bologna Process originated from different policy domains, together they have become complementary pillars supporting the internationalization of higher education across Europe. In light of these developments, this paper explores how the European Language Policy and the Bologna Process together contribute to the internationalization of higher education in North Macedonia, a candidate country for European Union membership. It examines how these complementary European initiatives, i.e., one fostering multilingualism and respect for linguistic diversity, the other harmonizing degree structures and promoting mobility, jointly facilitate cooperation, comparability, and competitiveness within the broader European Higher Education Area. The study offers insights into North Macedonia's implementation of these frameworks and their effects on the country's educational integration and international positioning. From an ICLHE perspective, these policy developments are also relevant because internationalization and multilingualism increasingly shape how disciplinary knowledge is taught, learned, and communicated in higher education. Mobility, multilingual repertoires, and the growing use of additional languages in academic settings create conditions in which language development and content learning cannot always be treated as separate processes. European language policy and the Bologna Process can therefore also be understood as providing part of the broader policy environment within which integrated approaches to content and language in higher education have developed.

European Language Policy: Principles and Tools

The European Union (EU) distinguishes itself through its commitment to preserving and promoting the linguistic and cultural diversity within its territory, recognizing multilingualism as one of its fundamental values. Since its inception, the EU has regarded multiculturalism and multilingualism as defining characteristics of European integration. Promoting and supporting multilingualism is part of the fundamental principles of European language policy. The EU actively develops language policy, which aims to define the role of languages within the education system. EU language policies promote reforms in the education system, specifically in the process of learning foreign languages. These reforms concern changes in curriculum development, teaching plans, textbooks, assessments, and the organization of the teaching process, including teaching methodologies for foreign languages. The goal is to plan and introduce multilingual teaching that will prepare students for a multilingual world (European Commission, 2016). The foundation for these reforms is the Common European Framework of Reference for Languages

(CEFR), originally published in 2001 and updated through the Companion Volume (Council of Europe, 2020), which reflects the current reference framework for language learning, teaching, and assessment across Europe.

Multilingualism in European Language Policy

Within European language policy, multilingualism is regarded as a fundamental value and a key objective of education, cultural cooperation, and social integration. According to the CEFR, multilingual competence extends beyond the knowledge of several languages and emphasizes the ability to draw on different linguistic and cultural resources in communication. This approach reflects the European Union's commitment to linguistic diversity, intercultural dialogue, and lifelong language learning. In 2007, the Union introduced the position of European Commissioner for Multilingualism to advance and protect multilingualism in member countries. Leonard Orban, the first commissioner (serving from 2007 to 2010), promoted practical benefits of multilingualism, emphasizing how language knowledge positively influences careers and businesses (Orban, 2009). Promoting language learning and linguistic diversity supports a healthy multilingual economy and grants citizens access to EU legislation in their languages (Kużelewska, 2014, pp. 2-4). Multilingualism continues to be a fundamental principle of European language policy. According to CEFR documentation (Council of Europe, 2001, p. 4), the aims of European language policy include:

- preparing Europeans for enhanced international mobility and cooperation across education, culture, science, trade, and industry;
- promoting mutual understanding, tolerance, respect for identities, and effective international communication;
- maintaining and developing the richness of European cultural life through better mutual knowledge of national and regional languages, including less commonly taught languages;
- meeting the needs of a multilingual and multicultural Europe by enhancing Europeans' ability to communicate regardless of linguistic and cultural boundaries;
- avoiding risks resulting from marginalization of those lacking necessary communication skills in an interactive Europe.

Key Characteristics of Multilingualism

According to the CEFR (Council of Europe, 2001, as cited in Stoycheva, 2006), the key characteristics of multilingualism are:

- Multilingualism is a complex communicative ability that includes all the languages a person masters (Council of Europe, 2001, pp. 15, 163);

- The knowledge and experiences gained through learning a language spread within one's cultural environment, starting from the family language, through the language of the entire society, to other languages studied at school or acquired through direct contact with speakers of languages different from one's own. These languages and cultures are not "stored" in separate mental compartments but are mutually interconnected;
- In multilingual communicative competence, languages are mutually connected and influence each other;
- Linguistic and cultural competences in one language modify competences in another language;
- Multilingual competence forms part of broader multicultural competence. However, the development of communicative ability and cultural competence are not always directly correlated;
- Multilingual and multicultural competences are variable and uneven because an individual acquires different levels of competence in the languages they study, and the multicultural profile differs from the multilingual profile of the person (Council of Europe, 2001, p. 163).

Multilingual and multicultural competences allow combinations and transformations of various kinds. This means it enables "switching" from one language to another, the use of mixed linguistic forms, and mediation between languages. The Common European Framework precisely defines the objectives of foreign language teaching, directed towards the development of multilingualism. These objectives have evolved - the goal of foreign language teaching is no longer the mastery of different languages learned in isolation from one another, but rather the development of a spectrum of languages. Language learning and the development of multilingual competence are considered lifelong tasks. Education systems should broaden the range of languages available for selection by interested learners, thereby ensuring opportunities to develop multilingual competence. Motivation, ability, and self-confidence should be encouraged in young people to face new challenges beyond school. The responsibility of educational institutions, examination committees, teachers, and professors should not be limited to achieving a certain level of proficiency but should continue through lifelong learning and improvement processes.

The Bologna Process and Internationalization

The Bologna Process is one of the largest reforms of higher education in Europe. It is the result of many years of educational reform within the European Union (EU) and across Europe more broadly. The main idea was to promote student mobility and, more recently, degree recognition (Roper, 2007, p. 52), meaning that education systems would become more similar so that students could study more easily in different countries and have their degrees recognized internationally. The reforms were designed to create a common European space in higher education, which would help prepare a highly skilled workforce able to compete worldwide. In other words, the Bologna Process was about building a knowledge-based society that would be

strong in the global market. It was also meant to be a shared strategic framework for countries to exchange educational policies and experiences, while at the same time making Europe more attractive and competitive economically (Munar, 2007, p. 80). The Bologna Process officially began with the signing of the Bologna Declaration in 1999 by ministers from 29 European countries. Its primary objective was to establish the European Higher Education Area through comparable degree structures, quality assurance, and enhanced student and staff mobility. The ministers once again emphasized that compatible and comparable qualifications and systems were essential to increase the attractiveness and "international competitiveness of the European system of higher education" (European Ministers of Education, 1999, p. 2).

The Bologna Declaration set out six main goals for reform. One of the central commitments was the introduction of a two-cycle degree system: the first cycle lasting at least three years and leading to a qualification "relevant to the labor market" (European Ministers of Education, 1999, p. 3), and the second cycle leading to a master's or doctoral degree. To make qualifications easier to understand and compare across countries, ministers introduced the Diploma Supplement, already integrated into the Lisbon Recognition Convention, and agreed to implement a credit transfer system to promote student mobility. Another priority was to remove barriers to mobility not only for students, but also for teachers, researchers, and administrative staff. Quality assurance was also emphasized to develop comparable criteria and methodologies across national systems. In addition, the ministers highlighted the importance of a European perspective in higher education, particularly in curriculum design, cooperation between institutions, mobility programs, and integrated study, training, and research.

As countries began implementing the reforms to build the European Higher Education Area, they adopted and developed three main tools: the Diploma Supplement, the European Credit Transfer and Accumulation System (ECTS), and qualifications frameworks. While only a few countries had developed national qualifications frameworks (NQFs) at the beginning, aligning them with a European framework soon became a key priority to support structural reforms (European Higher Education Area, 2023, pp. 22–23).

The Bologna Process has not only reflected internationalization of European higher education but has also actively promoted it. Internationalization has been one of its key strategies, closely linked to the broader goal of creating a unified and competitive European Higher Education Area (EHEA) (European Higher Education Area, 2020). This focus on internationalization emphasizes the need for higher education systems to respond to globalization by promoting academic cooperation across borders, facilitating the mobility of students and staff, and supporting the international recognition of qualifications. In addition, the goal of internationalization fits with broader European policies that promote intercultural dialogue, economic competitiveness, and lifelong learning (European Commission, 2005). The Erasmus+ program, an important tool supporting Bologna objectives, demonstrates how mobility and cooperation strengthen both the capacity of institutions and the development of individuals, while also reinforcing the strategic goal of internationalization (European Commission, 2016, 2017). By supporting internationalization,

the Bologna Process not only standardizes higher education but also encourages the sharing of knowledge, cultural experiences, and economic opportunities beyond national borders, which is crucial for Europe's position in the world (Munar, 2007; Roper, 2007). Although the implementation of the Bologna Process has presented challenges across different national contexts and has been the subject of critical debate, its contribution to the internationalization of higher education remains one of its most significant and enduring achievements.

Internationalization of higher education has been defined as encompassing activities, programs, and services related to international studies, educational exchange, and technical cooperation (Arum & van de Water, 1992). Building on this understanding, Knight (2008) conceptualizes internationalization as the process of integrating international, intercultural, and global dimensions into the purpose, functions, and delivery of higher education. It encompasses student and staff mobility, academic cooperation, curriculum development, and international recognition of qualifications. Within the European context, internationalization is closely linked to the Bologna Process and European language policy, both of which provide the framework for strengthening cooperation, multilingualism, and mobility across higher education institutions.

Multilingualism and internationalization in higher education in North Macedonia

Multilingualism in higher education in North Macedonia is structured around the CEFR, with study programs aligned to its defined proficiency levels to ensure standardized language learning outcomes. Across all programs, mandatory learning of more than one foreign language is required. English is the dominant foreign language; however, other languages such as French, German, Spanish, and Italian are also taught depending on the specific curriculum. These reforms aim to promote multilingualism and cultivate multilingual individuals equipped for broader mobility and intercultural engagement. North Macedonia officially joined the Bologna Process by signing the Declaration in September 2003. Through this commitment, Macedonian educational institutions pledged to implement key elements of the process, including:

- Establishing a unified European Higher Education Area;
- Ensuring student and academic staff mobility and recognition of diplomas through the universal application of ECTS;
- Introducing three-cycle study structures culminating in comparable diplomas supplemented by the Diploma Supplement;
- Improving the quality of educational services in academic institutions;
- Strengthening scientific research activities as a foundation for higher education advancement.

These reforms have gradually been implemented across higher education institutions in North Macedonia. All public universities now apply the European Credit Transfer and Accumulation

System (ECTS), issue the Diploma Supplement, and organize studies according to the three-cycle structure. Participation in Erasmus+ mobility programmes has expanded opportunities for students and academic staff to study, teach, and train at partner universities across Europe. According to the Erasmus+ Country Factsheet for the Republic of North Macedonia, higher education represents the largest share of mobility projects under the programme, demonstrating the active engagement of Macedonian higher education institutions in European academic cooperation and mobility initiatives (European Commission, 2023).

The 2023 Bologna Process Implementation Report notes that while student and staff mobility from North Macedonia has increased, it still falls below the European average, reflecting ongoing efforts needed to enhance internationalization and cross-border cooperation (European Higher Education Area, 2023). Moreover, lifelong learning initiatives and the integration of digital language learning tools are increasingly recognized as vital pathways to fostering multilingual competence beyond formal education settings (European Commission, 2020). Participation in Erasmus+ mobility programs has contributed positively to the development of language competences and intercultural skills among students and academic staff, further supporting internationalization objectives (European Commission, 2016). Research further corroborates the positive impact of multilingual skills on graduates' employability and competitiveness in the European labor market (Cedefop, 2019). These interconnected efforts continue to drive the progress towards a more inclusive, multilingual, and internationally engaged higher education system in North Macedonia. Nevertheless, the long-term success of these reforms depends not only on adopting European frameworks but also on ensuring their consistent implementation across higher education institutions. Continued investment in language education, academic staff development, digital learning resources, and international cooperation will be essential for North Macedonia to fully realize the objectives of multilingualism and internationalization. Taken together, these developments demonstrate that North Macedonia has made substantial progress in aligning its higher education system with European language policy and Bologna objectives, although continued institutional development remains necessary to ensure the consistent implementation of these reforms across the sector.

Conclusion

The integration of European language policy and the Bologna Process has significantly shaped the internationalization of higher education in North Macedonia through the adoption of the European Credit Transfer and Accumulation System (ECTS), the Diploma Supplement, CEFR-based language policies, and increased participation in Erasmus+ mobility programmes. The European Language Policy promotes multilingualism as an essential competence, fostering communication skills necessary for mobility and intercultural understanding within the European Higher Education Area. The Bologna Process, through its structural reforms such as the adoption of ECTS, the Diploma Supplement, and degree harmonization, complements this language policy by creating transparent, comparable, and compatible study frameworks.

Together, these two pathways advance North Macedonia's alignment with European standards and facilitate student and staff mobility, institutional cooperation, and enhanced employability of graduates. The mandatory learning of multiple foreign languages and adherence to CEFR proficiency levels ensure that graduates are linguistically equipped for the demands of international academic and labor markets.

Moreover, the sustained commitment to Bologna reforms strengthens the quality of the country's higher education system and its participation in the global knowledge economy. As Knight (2008) argues, internationalization is a process of integrating international and intercultural dimensions into the purpose, functions, and delivery of higher education. Similarly, the Council of Europe (2020) emphasizes that plurilingual and intercultural competence are fundamental for democratic participation, social cohesion, and lifelong learning. Together, these perspectives reinforce the importance of sustained investment in foreign language learning as a foundation for employability, intercultural competence, and academic and professional mobility. This investment not only enriches individuals culturally and professionally but also aligns with the EU's vision of fostering intercultural dialogue, mobility, and cooperation in an increasingly interconnected world. These intertwined efforts contribute to building a multilingual, mobile, and competitive educational environment that supports North Macedonia's ambitions for European integration and global academic collaboration.

Continued implementation and development of these policies remain crucial for maintaining momentum towards achieving these internationalization goals. Moving forward, North Macedonia's alignment with European language policies and the Bologna Process remains essential to enhance its higher education internationalization. Continued promotion of multilingualism and effective implementation of tools like the European Credit Transfer and Accumulation System (ECTS) will support greater student mobility and academic cooperation (European Higher Education Area, 2023). Lifelong language learning initiatives and digital innovations can equip learners with essential skills to meet the demands of a globalized economy (European Commission, 2016). Further harmonizing national qualifications frameworks will improve degree comparability and graduate employability within Europe (Knight, 2008). These efforts will strengthen North Macedonia's integration into the European Higher Education Area and foster a dynamic, multilingual knowledge society.

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3. Language Dynamics and Co-Authorship in the Internationalization of Higher Education in Latin America and the Caribbean

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Abstract: This study examines co-authorship patterns in Latin American and Caribbean (LAC) scholarship on higher education internationalization, focusing on intracontinental and intercontinental collaborations and the role of institutional links and publication language. Using a quantitative approach, the analysis draws on co-authored articles indexed in Scopus, Web of Science, and Lens, considering authorship configurations, collaboration patterns, and language of publication. The findings indicate that co-authorship predominates in LAC, accounting for over 66% of publications; however, collaborations largely occur among researchers working in the same country, with limited regional cooperation. Intercontinental collaborations are more frequent with central countries, notably the United States, the United Kingdom, and Iberian nations, and are predominantly published in English, especially in commercial journals. These patterns underscore persistent power asymmetries in global scholarly communication and highlight the need for policies fostering regional integration and linguistic diversity.

Keywords: internationalization of higher education, Latin American and Caribbean, collaboration, co-authorship, language.

Introduction

Internationalization of higher education (IHE), understood as a practice aimed at fostering academic cooperation among different institutions, has collaboration as one of its core pillars (Carneiro et al., 2020; Demeter et al., 2023). Despite the myth (Knight, 2011) and misconception (de Wit, 2011) that the IHE is carried out solely by physical mobility, other activities such as cooperation agreements (Finardi et al., 2020) and virtual mobility (Mendes & Finardi, 2023) have gained prominence. Initiatives such as Collaborative Online International Learning (COIL) and Virtual Exchange (VE)[1] have broadened the possibilities for cooperation, transcending geographical barriers and strengthening international collaboration (Hildeblando Júnior et al., 2022; Wimpenny et al., 2022; Finardi et al., 2024). Because of the physical distance measures imposed during the Covid 19 pandemic, COIL/VE gained traction as a way to include voices from the South (Guimarães & Finardi, 2021) and as a way to develop Internationalization at Home (IaH) and Internationalization of the Curriculum (IoC) (e.g. Finardi & Asik, 2024), Global Citizenship Education (GCE) (Guimarães & Finardi, 2021; Ortiz-Rojo et al., 2025), and a ThirdSpace to develop intercultural competence (Orsini-Jones et al., 2025).

Internationalization at Home (IaH) is defined by Beelen and Jones (2015) as “the purposeful integration of international and intercultural dimensions into the formal and informal curriculum for all students within domestic learning environments.” (p. 69). According to Guimarães et al. (2019), COIL/VE is a relevant way to develop IaH in a more inclusive way considering the number of academics who can engage in physical mobility. IaH encompasses a variety of strategies designed to promote an international perspective within the local academic environment, including the development of language policies for the use, teaching, and learning of foreign languages (Abreu-e-Lima et al., 2017).

1 For the sake of this study we use COIL and VE as synonyms.

One example of such strategies, which can form part of an institutional policy, is English Medium Instruction (EMI), which entails the use of English as a language of instruction in academic courses in non-Anglophone countries (Taquini et al., 2017; El Kadri et al., 2021; Taquini & Finardi, 2021; Finardi & Helm, 2025). In Brazil, internationalization policies and language policies were induced by national programs such as the Science Without Borders and the Languages Without Borders programs, which offered scholarships abroad and extensive language-learning opportunities for students (and later for staff and faculty) in Brazilian higher education institutions (Finardi & Archanjo, 2018). If we compare data in Martinez (2016) and then a couple of years later in the EMI guide of 2018-2019[2], it is possible to observe that the offer of EMI courses in Brazil has grown considerably after the creation of these programs.

Another important practice of IaH is the development of research in collaboration with peers from other countries. Although interactions between researchers of different nationalities and/or working in different countries have long been a consolidated scientific practice, these collaborations have been greatly enhanced by globalization with its technological tools that bridge distances between researchers. In addition, incentives for international co-authorship have been widely incorporated as criteria to assess internationalization efforts, functioning as key elements for participation in international rankings that recognize the excellence of teaching and research institutions, despite criticism raised at what rankings actually measure (Finardi & Guimarães, 2017).

Knowledge production conducted collaboratively encompasses the joint development of research and materializes through productive dialogue among researchers, academic entities, and funding agencies. This process implies harmonizing theoretical and methodological approaches, strategically distributing tasks, transparently sharing data and findings, and effectively managing the multiple facets of collaborative work. For this reason, the analysis of scientific collaboration is a useful resource to observe regional, national, and international cooperation (Oliveira, 2018).

Hilário and Freitas (2020) emphasize that collaboration is sometimes equated with co-authorship, which is a misconception, as co-authorship is only one type of scientific collaboration. As indicated by the foregoing examples, collaboration encompasses a broader range of joint activities, many of which are not formally documented or explicitly stated.

Once collaborative work is formalized and disseminated as a scientific product, the degree of collaboration may be measured through co-authorship, which functions as a bibliometric indicator of collaborative activity. Such indicators enable analysis of researcher interactions during the processes that culminate in jointly authored publications. They rely on data regarding authorship and institutional affiliation, supporting the identification of research trends, citation networks, vocabulary usage, dissemination channels, and language preferences (Maltrás-Barba, 2003).

2 https://faubai.org.br/britishcouncilfaubaiguide2018.pdf

It is at this point that the choice of the language of research dissemination assumes analytical centrality. Far from constituting a merely communicative aspect, the language of publication becomes a strategic element in the processes of production, validation, and circulation of scientific knowledge, directly influencing the formation of collaborative partnerships, academic visibility, scientific impact, and institutional recognition. Moreover, language acts as an important catalyst for internationalization dynamics, shaping both the reach of research and its insertion into international academic circuits.

Within the context of the internationalization of higher education, the consolidation of English as the academic lingua franca (Finardi et al., 2016) has been driven by editorial policies (França & Finardi, 2025a), evaluation systems, and international indexing databases (França & Finardi, 2024), which tend to associate scientific quality with publication in globally circulated, predominantly Anglophone journals (Finardi et al., 2022, 2023). This scenario contributes to the construction of linguistic and epistemic hierarchies, in which certain languages, particularly English, accumulate greater symbolic and scientific capital, while others, such as Portuguese and Spanish, are progressively marginalized (França & Finardi, 2025b; Finardi, 2022).

Although academic production in Latin America and the Caribbean has experienced quantitative growth, its insertion and representation in international scholarly dialogues remains limited, largely due to the language of publication (e.g. Finardi & Guzmán-Valenzuela, 2021) and dependence on editorial channels from the Global North (Finardi & França, 2016). In this sense, the predominance of English is intertwined with a broader process of coloniality of knowledge (e.g. Chiappa & Finardi, 2021, Finardi & Helm, 2025), whereby knowledge produced in peripheral contexts must be validated according to epistemological, linguistic, and institutional parameters defined in central countries in order to attain international legitimacy. Consequently, internationalization tends to operate more as a mechanism of homogenization than of integration, reinforcing historical asymmetries and restricting the plurality of perspectives, themes, and research agendas.

This interpretation is corroborated by other authors from the Global South (e.g. Canagarajah, 2002) looking at the academic production in Latin America (e.g. Céspedes, 2021) and Africa (França & Finardi, 2024). The latter study examined a set of Latin American and African journals and demonstrated that the adoption of English as the language of publication does not necessarily result in greater international collaboration or a proportional increase in scientific impact. Such evidence suggests that language, although necessary, is not sufficient to overcome structural barriers to visibility and recognition. On the contrary, a tendency toward English monolingualism can be observed, with the potential to weaken linguistic diversity and reduce the social reach of knowledge produced in local contexts (França & Finardi, 2025c).

Indeed, it is evident that language, co-authorship, and internationalization processes cannot be understood in isolation, as they are articulated as structuring dimensions of contemporary scientific production. It is from this articulation that the present study emerges, with the aim of examining co-authorship dynamics in Latin American and Caribbean (LAC) scientific production on

the internationalization of higher education. The investigation analyzes the relationship between the country of institutional links of co-authors, intracontinental and intercontinental collaboration patterns, and the use of English in publications. Based on this analytical framework, the study seeks to address the following research question: how do these collaboration patterns influence the choice of publication language and the dissemination channels of academic production in the region?

Methodology

Quantitative analysis of scientific collaboration based on co-authorship can be carried out through two distinct approaches: simple and relational[3]. Due to space constraints and the scope of this study, we adopt a simple approach to provide an overview of the collaboration patterns under examination.

The corpus consisted of scientific articles on higher education internationalization published between 2008 and 2023 and co-authored by authors with institutional affiliation from LAC. This period was selected because it represents a significant growth phase in the region's scholarly output, influenced by public programs that induced and promoted the internationalization of higher education in the region.

To retrieve bibliographic records published in scientific journals, we used the Scopus, Web of Science (WoS), and Lens databases. These databases were selected due to their broad coverage and representativeness: Scopus and WoS include journals belonging to the mainstream of scientific communication and the research field under study, while Lens complements the dataset by incorporating wider local and regional coverage aligned with its indexing policies.

The database searches were conducted in the first half of 2024, using a unified strategy applied across all platforms and targeting retrieval in three distinct record fields: title, keywords, and abstract. The same descriptors and logical operators were employed in all three databases, resulting in the following search string:

(internacionalização OR internacionalización OR internationalization OR internationalisation) AND ("educação superior" OR "ensino superior" OR "educación superior" OR "higher education" OR "tertiary education").

Results and Discussion

Preliminary analysis of the corpus, which totaled 713 records, revealed a consistent pattern across all databases: a significant predominance of co-authored articles over single-authored

3 Maltrás-Barba (2003) considers that the simple approach presents general characteristics of collaboration, such as the percentage of co-authored documents, the temporal distribution of production, and institutional or national representation, without detailing the nature of the collaboration. On the other hand, the relational perspective focuses on the interactions between researchers, analyzing the connections and networks formed, transcending the mere counting of joint publications.

ones. This trend is illustrated in Table 1, which shows the distribution of articles by authorship type in each database.

Table 1. Distribution of articles by single authorship and co-authorship in the databases

Database	Individual authorship	%	Co-authorship	%	Total
Scopus	24	33,33%	48	66,67%	72
WoS	36	18,65%	157	81,35%	193
Lens	118	26,34%	330	73,66%	448
TOTAL					713

The overall scenario corroborates Queiroz and Vilan Filho (2019), who note that although co-authorship has existed since the 17th century, it intensified in the 20th century and became dominant in multiple fields after the 1980s. This shift reflects substantial changes in the dynamics of scientific production and dissemination.

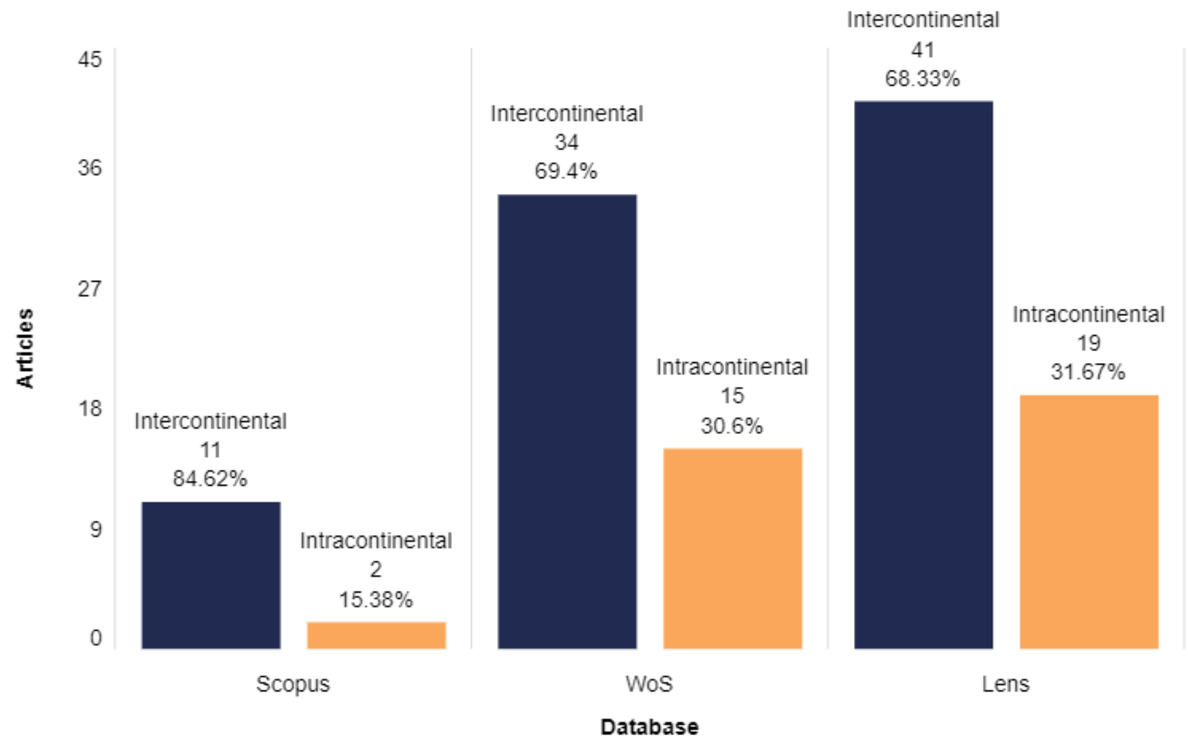
The rise from individual authorship to co-authorship—although not originating in 1901—was reinforced by several historical and social factors over subsequent decades. Among these, the fragmentation of broad fields into more specialized disciplines, the professionalization of scientific careers, the increasing interdisciplinarity of research, and the expansion of public funding for scientific projects stand out. These elements contributed to transforming scientific knowledge production from a predominantly individual pursuit into an increasingly collaborative enterprise (Vanz & Stumpf, 2010).

Despite the strong prevalence of co-authored work, scientific output in the three databases shares a common characteristic: a high proportion of articles are the result of collaboration among researchers from the same nationality, that is, internal co-authorship. This trend is most pronounced in Lens, with 270 such articles (81.8% of N=330). Scopus and WoS show the same pattern, albeit with slightly lower proportions (35 articles or 72.9% in Scopus; 108 articles or 68.8% in WoS).

Collaboration across different countries' nationalities was examined from two perspectives: intracontinental (collaborations among LAC authors) and intercontinental (collaborations with authors from other world regions, notably the United States and Canada). For classification, institutional affiliation was used as the reference.

Analysis of co-authorship patterns in LAC, presented in Figure 1, shows uniformity across the three databases regarding the low frequency of intracontinental co-authorship compared with intercontinental collaborations. Intracontinental collaboration does not reach one-third of cases in Scopus (13 articles; 15.38%) or WoS (15 articles; 30.60%). In Lens, although the percentage is higher and close to one-third, it remains low, particularly given that the database indexes more local and regional journals than the others.

Figure 1. Intercontinental and intracontinental co-authorship collaborations by database



To examine whether the country of institutional affiliation influences intracontinental collaboration in LAC—considering that a substantial portion of countries in the region are Spanish-speaking—we conducted a segmented analysis of intracontinental co-authorship. Two categories were considered: collaborations among Spanish-speaking authors and collaborations between Spanish- and Portuguese-speaking authors (the latter represented by Brazilian authors).

Results indicate interesting distribution patterns. In Scopus, both categories had one article each. In WoS, nine collaborations involved Spanish-speaking authors and five involved Portuguese-speaking ones. Lens reflected a similar trend, with 10 collaborations among Spanish speakers and nine between Spanish and Portuguese speakers.

These findings suggest that, in addition to the country of institutional link, language plays a crucial role in scientific collaboration dynamics in LAC. Examining the subset of intracontinental co-authorship by country of affiliation, we observe notable variation in publication languages. In Scopus, all articles were published in Spanish; in WoS, English was exclusively used. Lens displayed greater linguistic diversity: 14 articles (73.75%) were in Spanish, four (21%) in Portuguese, and one (5.26%) in English.

Comparisons between the two databases with the largest datasets reflect their differing indexing policies. WoS, linked to a major publishing group, predominantly indexes internationally circulated journals. This directly influences authors' language choices, who favor languages offering greater visibility and impact, mainly English.

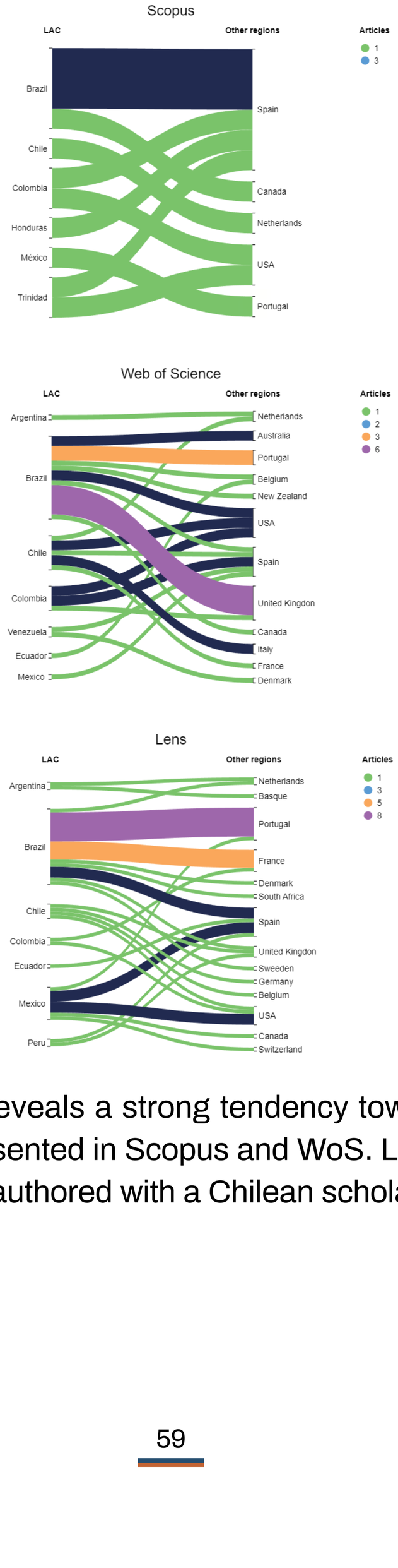
Lens adopts a more inclusive indexing approach, particularly toward peripheral and semi-peripheral countries. This policy allows for broader representation of local and regional journals, resulting in greater linguistic diversity. It mirrors the linguistic reality of regional scientific production and yields a more equitable representation of research conducted in different contexts.

In the intercontinental dimension, co-authorship patterns were visualized using an alluvial diagram (Figure 2), which plotted LAC countries engaged in co-authorship on one axis and their frequent partner countries on the other. Colors represented the volume of joint publications.

Similar to the general analysis of LAC scientific production, Brazil stands out with the highest number of intercontinental co-authored articles: four in Scopus, 17 in WoS, and 21 in Lens. Rankings for second place, however, vary: Colombia (2) in Scopus, Chile (6) in WoS, and Mexico (9) in Lens.

Few LAC countries produced co-authored work with partners outside the region in this research domain. Four countries appear consistently in all databases: Brazil, Chile, Colombia, and Mexico.

Figure 2. International co-authorship collaborations between LAC countries and other regions.



Analysis of partner countries reveals a strong tendency toward collaboration with authors based in core countries, fully represented in Scopus and WoS. Lens is the only database where this differs, showing one article co-authored with a Chilean scholar affiliated with a South African institution at the time.

Collaboration with Iberian countries is also frequent, especially in Scopus and Lens. In Scopus, Spain leads co-authorships; in Lens, Spain and Portugal share this position. Historical-cultural ties and linguistic affinities likely facilitate these partnerships, although they do not necessarily imply preference for Spanish or Portuguese as publication languages.

In addition to Iberian nations, the United Kingdom and the United States also emerge as prominent partners. In WoS, seven articles were co-authored with scholars based in the UK and six with scholars based in the US. Scopus reported two co-authored publications with each country. Lens shows an intermediate pattern, with seven articles distributed between the United States (four) and the United Kingdom (three). This distribution reflects a clear inclination toward partnerships with Anglophone countries with strong scientific output.

Table 2 presents the languages used in intercontinental co-authored publications. The goal was to determine whether partnerships—predominantly with European countries—influence language choice for scientific dissemination.

Table 2. Distribution of languages of articles in intercontinental co-authorship in the databases

Language	**Database**					
	Scopus	**%**	**WoS**	**%**	**Lens**	**%**
Spanish	4	36,36%	2	5,88%	6	14,63%
English	4	36,36%	29	85,3%	26	63,41%
Portuguese	2	18,18%	1	2,94%	8	19,51%
Plurilingual	1	9,1%	2	5,88%	1	2,45%
TOTAL	11	100%	34	100%	41	100%

As shown, English is the preferred language for disseminating scientific work, even in Scopus, where the share of co-authorship with Iberian countries was proportionally greater than in the other databases.

Final Considerations

Although our study focuses on a specific domain of higher education research related to internationalization practices, the preference for English as the scientific lingua franca is evident in this context as well. In the realm of international partnerships, this preference raises questions about the potential gains in visibility and impact enabled by a language with a broader global audience.

This phenomenon aligns with De Swaan's (2001) concept of *Q-value*, which highlights the communicative value of a language based on its centrality and prevalence. It also underscores the influence of geopolitical factors on the production and dissemination of knowledge.

These dynamics reinforce scenarios in which core countries ultimately set the standards for those in peripheral and semi-peripheral regions, with language serving as one of the determinants, as noted by Canagarajah (2002). This panorama reflects the complex power relations that shape the international academic landscape.

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4. The Role of English Language Proficiency in Brazilian EMI Practices: Toward an Inclusionary and Egalitarian Framework

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Abstract: The role of English in global academic environments has expanded significantly in recent decades. In this context, English as a Medium of Instruction (EMI) has emerged as a strategic approach to teaching academic content in countries where English is not the primary language. In Brazil, a country marked by geolinguistic isolation as the only Portuguese-speaking nation in South America, EMI remains incipient and is largely driven by isolated, bottom-up faculty initiatives. This study investigates EMI adoption across eight fields of knowledge and examines how university professors' self-rated English proficiency relates to their classroom practices. Drawing on 4,716 responses from a nationwide survey of PhD-holding university instructors, the analysis reveals disciplinary variation. Linguistics, Literature, and Arts showed the highest reported use of EMI, at 25.2%, while the Human Sciences showed the lowest, at 6.0%. Although professors generally rated their English proficiency as intermediate to advanced, these self-ratings showed only a weak correlation with active EMI implementation. The findings suggest that language proficiency, while necessary, is not sufficient for the transition to teaching through English. They highlight the need for institutional policies that move beyond linguistic qualification to include pedagogical development and attention to the social inequalities that may shape access to, and participation in, EMI.

Keywords: EMI, proficiency, Brazilian higher education, disciplinary differences, internationalization at home.

Introduction: EMI in Brazil

The global expansion of Higher Education (HE) has been accompanied by the increasing use of English as a primary tool for internationalization (Altbach & Knight, 2007; Dearden, 2014). In Brazil, the internationalization of HE has historically prioritized physical mobility, particularly outward mobility. However, geographic distance, financial constraints, and language barriers restrict such opportunities to a small proportion of the Brazilian academic population. Internationalization at Home (IaH) has therefore gained increasing theoretical and practical relevance in the country (Baumvol & Sarmento, 2016; Beelen & Jones, 2015). Beelen and Jones (2015) define IaH as the purposeful integration of international and intercultural dimensions into the formal and informal curriculum for all students within domestic learning environments. In Brazil, English-medium instruction (EMI) may contribute to IaH by providing greater exposure to global academic discourses and opportunities for incidental language development without requiring students to cross national borders (Baumvol & Sarmento, 2019).

Nevertheless, the Brazilian context presents a distinct paradox. Although the country has the potential to become a significant participant in global HE, its robust domestic HE market reduces its immediate dependence on international student recruitment (Alperin, 2013). This may partly explain why EMI has not become a widespread institutional priority. Its development remains embryonic, highly localized, and fragmented rather than guided by a homogeneous national policy (Gimenez et al., 2018). Brazil's geolinguistic position as the only Portuguese-speaking country in a predominantly Spanish-speaking region may also limit academic circulation and

collaboration within the continent. This regional linguistic gap, combined with the dominance of English in global academia, creates additional challenges for the dissemination of Brazilian research and the country's visibility in international academic networks (Taquini & Finardi, 2021). EMI may thus offer HEIs a means of increasing the international reach of the high-quality research conducted in one of the world's major emerging economies (Gimenez et al., 2018; Guimarães & Kremer, 2020).

The role and acceptance of EMI, however, vary considerably across disciplinary communities. Studies of Brazilian scholars' publication practices show a clear contrast between the harder and softer sciences in their use of English and participation in international academic networks. Biological Sciences, Health Sciences, Engineering, and Exact and Earth Sciences tend to publish predominantly in English and rely heavily on international journal articles as their main genre of scholarly communication (Baumvol et al., 2021). By contrast, the Human Sciences and Linguistics, Literature, and Arts remain more locally oriented, with a strong predominance of Portuguese-medium publications and greater emphasis on books and book chapters. Recent research indicates that scholars in these fields have developed relatively insular publication systems centered on domestic audiences (Sarmento et al., 2026). Portuguese accounts for more than 80% of their publications, whereas English represents only 5.4% of publications in Linguistics, Literature, and Arts and 13.1% in the Human Sciences.

These patterns reflect differences in language proficiency, disciplinary traditions, target audiences, preferred publication genres, evaluation systems, and degrees of integration into international academic networks. EMI may be more readily adopted in fields already embedded in English-dominant forms of knowledge production, while its implementation in other areas may require more complex negotiations involving language, identity, access, and knowledge dissemination (Baumvol et al., 2024).

Research comparing fields of knowledge in Brazilian HE provides empirical support for the theoretical distinctions proposed by Becher (1989) and Bernstein (1999) and reveals corresponding differences in the perceived benefits of and resistance to EMI (Baumvol et al., 2024). Scholars in harder and more exocentric fields, such as Engineering and Biological Sciences, tend to view English as a pragmatic means of accessing a relatively unified global scientific discourse and generally express greater acceptance of EMI. For example, 70% of Engineering professors and 64% of Biological Sciences professors identified the participation of international students as a key benefit of EMI, compared with only 41% of professors in the Human Sciences (Baumvol et al., 2024).

The softer sciences tend to display greater skepticism toward EMI, reflecting a more endocentric disciplinary orientation. As Bernstein (1999) argues, the Humanities often foster understanding through multiple interpretations of phenomena that are deeply rooted in local linguistic and cultural frameworks. In these fields, the preference for Portuguese may constitute an ideological choice aimed at preserving local academic traditions and resisting academic imperialism or the uncritical Englishization of knowledge. Accordingly, professors in the Human

Sciences and Linguistics, Literature, and Arts were the most likely to state that adopting EMI offered no benefits (Baumvol et al., 2024).

These perceptions are broadly consistent with reported implementation rates. EMI is used by only 6.0% of professors in the Human Sciences, compared with 17.5% in Engineering and 16.0% in Biological Sciences. Linguistics, Literature, and Arts constitute an exception among the softer fields, with the highest overall implementation rate, at 25.2% (Baumvol et al., 2024). This result can largely be attributed to TESOL and foreign language programs, in which English is both an object of study and a medium of instruction. Even with this disciplinary exception, teaching through English remains uncommon across the Brazilian academic community.

The expansion of EMI also raises significant social and ideological concerns. Scholars have warned that internationalization policies centered on EMI may inadvertently undermine multilingualism and local linguistic diversity (Goodman, 2014; Shohamy, 2013). In Brazil, severe socioeconomic inequalities create an additional risk that EMI will reinforce linguistic elitism (Baumvol & Sarmento, 2019). Access to high-quality English-language education remains concentrated among students from more affluent backgrounds, who are more likely to benefit from private instruction, international mobility, and other language-learning opportunities. For many students from lower-income backgrounds, attaining the level of English commonly associated with participation in EMI remains “just a dream” (Windle & Nogueira, 2014, p. 188).

Inequalities also operate at the institutional level. Brazilian HEIs differ considerably in their access to financial resources, internationalization structures, and language support. More privileged institutions may consequently be better equipped to develop EMI initiatives, while others face greater linguistic, pedagogical, and institutional constraints. Without adequate support, the expansion of EMI may therefore widen existing inequalities across different sectors of Brazilian HE (Baumvol & Sarmento, 2019).

Language proficiency requirements for faculty represent one concrete manifestation of these tensions. International literature, particularly work conducted within the European Higher Education Area, often identifies C1 on the Common European Framework of Reference (CEFR) as the minimum level required for lecturers to teach effectively through English. Applying this threshold strictly in Brazil, however, would create a structural impasse. In a 2019 report for the British Council, Martinez argues that requiring this European standard “would condemn EMI to failure here in Brazil” (Martinez & Morgan, 2019, p. 13), as a substantial proportion of the Brazilian academic community may not possess this level of proficiency.

Martinez and Morgan (2019) further contend that no empirical evidence establishes C1 as an absolute minimum requirement for EMI teaching. Their evaluation of EMI practices suggests that B2 may often be sufficient for the comprehension and delivery of academic content, particularly when the EMI classroom is understood as a space of mutual accommodation rather than linguistic perfection. From this perspective, teaching and learning depend on cooperation, negotiation, and shared responsibility, and neither students nor professors necessarily expect native-like performance from one another. This approach is particularly relevant in Brazil because overly

rigid proficiency requirements could restrict EMI to a small elite of highly proficient academics, rather than support broader and more inclusive forms of internationalization.

Building on previous research into faculty perceptions (Marengo, 2022) and the role of English in scholarly publication (Baumvol et al., 2021), the present study examines the relationship between professors' self-rated English proficiency and their use of EMI across fields of knowledge in Brazilian HE. It considers both their overall proficiency levels and their use of English in undergraduate and graduate teaching. In doing so, the study moves beyond general claims that proficiency constitutes the main barrier to EMI and investigates how linguistic and disciplinary factors jointly shape its adoption in Brazilian HE.

Methodology

This study employs a quantitative, descriptive research design using a cross-sectional survey to map EMI practices across Brazil. Given the continental dimensions of Brazil and the profound heterogeneity of its HE system, a macro-level approach was necessary to capture disciplinary and regional variations.

All procedures were conducted in strict adherence to ethical guidelines for research involving human subjects. Data were anonymized to protect respondents' privacy, with findings reported only in aggregate form.

Sampling Frame and the Lattes Platform Filtering Process

The recruitment of participants followed a systematic sampling strategy via the Lattes Platform[4], maintained by the National Council for Scientific and Technological Development (CNPq). The Lattes Platform is the official and most comprehensive repository of scientific and academic curricula in Brazil, making it the gold standard for identifying the country's research population.

To isolate the target population of interest, the researchers employed the "Search Curriculum Lattes" advanced tool. The following filtering criteria were rigorously applied:

1) Academic Degree: The search was restricted to Ph.D. holders. This criterion was chosen because professors with a Ph.D. are typically the primary agents responsible for curriculum design and the implementation of internationalization strategies at both undergraduate and graduate levels.
2) Professional Activity: The filter was set to "Brazil" to target individuals with active professional ties to Brazilian HEIs.
3) Fields of Knowledge: To ensure a comparative analysis across the academic spectrum, the search included the eight major fields defined by CNPq: Agricultural Sciences,

4 https://lattes.cnpq.br/

Biological Sciences, Health Sciences, Exact and Earth Sciences, Engineering, Applied Social Sciences, Human Sciences and Linguistics, Literature, and Arts.

Data Collection, Trimming, and Final Sample Size

The data collection instrument, an electronic questionnaire hosted on Google Forms, was distributed via email to 29,747 professors identified through the aforementioned filtering process. The data collection period occurred in 2017, yielding an initial response pool of 5,516 responses.

To indicated they did not hold a Ph.D. or who provided incomplete responses were removed (n = 397), and 2) to facilitate a clean correlational analysis between disciplinary culture and practice, respondents who selected multiple disciplinary fields were excluded. The final consolidated sample for this study consisted of 4,716 valid participants, representing a response rate of 17.2%. This sample size is considered highly robust for a nationwide survey and provides sufficient power for the comparative analyses between the eight fields of knowledge.

Variable Operationalization and Scales

While the original questionnaire was part of a broader project, this manuscript focuses on the analysis of specific items designed to measure the intersection of proficiency and EMI practice, examining professors' general English proficiency and their use of English at the undergraduate and graduate levels.

Proficiency Variables

Professors self-rated their English skills across two primary dimensions: General English Proficiency and Reading Proficiency in English. A 4-point Likert-type scale was utilized (1 = No knowledge, 2 = Basic, 3 = Intermediate, 4 = Advanced). The 4-point scale was intentionally selected to eliminate the "neutral" midpoint, forcing respondents to declare a specific level of perceived competence.

The reliance on self-reported proficiency measures is substantiated by a consistent body of research in applied linguistics and language assessment, which demonstrates the validity and reliability of self-ratings for adult learners. Methodological frameworks indicate that adult users, particularly highly educated ones, such as Ph.D. holders, possess a heightened level of metalinguistic awareness that enables them to evaluate their abilities with a high degree of precision (Oscarson, 1989; Ross, 1998).

EMI Practice Variable

Teaching practices by the professors were measured across the pillar of classroom activity and evaluated separately for the Undergraduate and Graduate levels, focusing on *the language used by the professor during instruction (lectures/talks)*. It was measured on a 5-point frequency scale: 1) Only in Portuguese; 2) Preferably in Portuguese; 3) In Portuguese and English; 4) Preferably in English, and 5) Only in English.

Data Processing and Statistical Treatment

Data were processed using SPSS version 28.0 (IBM Corp, 2021). The analysis began with descriptive statistics to determine the means (*M*) and standard deviations (SD) for each field and level of education. To address the central research question regarding the relationship between proficiency and practice, Pearson's Correlation (r) was applied. Correlation coefficients were interpreted according to standard academic thresholds: values below 0.30 were categorized as weak; between 0.31 and 0.60 as moderate; and above 0.61 as strong. Significance levels were set at $p < .05$. This rigorous statistical treatment allows for an evidence-based discussion of whether linguistic competence is indeed the primary predictor of EMI adoption in Brazil or if disciplinary and context-specific variables exert a more dominant influence.

Professors' Self-Rated Proficiency

The first objective of this section was to investigate how Brazilian professors perceive their own English language skills. Using a four-point Likert-type scale ranging from 1 (no knowledge) to 4 (advanced), the empirical data revealed that professors generally view themselves as intermediate-to-advanced users of the language (*M* = 3.15) (Table 1).

Table 1. Self-Rated General English Proficiency of HE Professors

Variable	N	M	SD
General English Proficiency	4,706	3.15	0.77

Note. Spectrum ranged from 1 (No knowledge) to 4 (Advanced). Data adapted from Marengo (2022).

While this specific 4-point scale does not perfectly map onto the six levels of the CEFR, a mean score leaning toward the higher end of the spectrum suggests that the majority of the academic community operates comfortably at a B2 level or higher. This finding is of critical importance to the Brazilian HE context, as it challenges the assumption that a pervasive lack of English proficiency is the sole barrier to internationalization. If an intermediate-plus level is theoretically sufficient to ensure that both local and international students can comprehend the academic content delivered, the primary barrier to EMI adoption may not be strictly linguistic but rather pedagogical or structural.

Patterns of Language Use in the Classroom

To understand the depth of English integration in active teaching practices, this study analyzed the specific language used by professors during classroom instruction (i.e., lectures and talks). A 5-point frequency scale was employed, ranging from 1 (Only in Portuguese) to 5 (Only in English) across both educational tiers (Table 2).

Table 2. Language Used by Professors During Instruction

Level of Education	N	M	SD
Undergraduate	4,347	1.14	0.49
Graduate	3,977	1.31	0.70

Note. Scale ranged from 1 (Only in Portuguese) to 5 (Only in English). Data adapted from Marengo (2022).

The empirical results reveal a pronounced hesitancy toward productive, active use of English in the classroom. At the undergraduate level, oral instruction is overwhelmingly conducted in the local language, with a mean score of 1.14 indicating almost exclusive use of Portuguese. The scenario shifts only marginally at the graduate level (M = 1.31). Although graduate environments are traditionally considered the primary hubs for internationalization and advanced research, active instruction remains deeply rooted in Portuguese. This stark contrast between the professors' relatively high self-rated English proficiency and their minimal active use of the language in the classroom points to an internationalization process that is currently passive. Academics may possess the linguistic foundation, but oral delivery in English remains a marginal, highly localized practice.

Correlation Analysis: Linking Proficiency to Practice

The final objective of this analysis was to determine the statistical relationship between the professors' self-assessed general English proficiency and their active classroom instruction. Pearson's Correlation (r) was applied to measure the strength and direction of the association between the reported language skills and the choice of language for instruction.

The analysis revealed that general proficiency correlates positively, but only weakly, with the language used by professors during instruction at both the undergraduate (r = 0.17, p < .001) and graduate levels (r = 0.22, p < .001). This weak association constitutes one of the most revealing findings of the study. It demonstrates that while a baseline of linguistic competence is required to initiate EMI practices, it does not, on its own, trigger the transition to English-medium teaching. The fact that highly proficient professors are not automatically delivering classes in English reinforces the notion that proficiency is a necessary, but ultimately insufficient, condition for EMI adoption.

Discussion and Conclusion

The findings of this study offer a comprehensive, albeit sobering, view of the current state of EMI in Brazilian HE. A critical finding is the significant gap between faculty proficiency and active classroom implementation. While professors generally rate their overall English proficiency relatively high (*M* = 3.15/4, corresponding roughly to a B2 or C1 level on the CEFR), their active use of English in lectures remains minimal at both the undergraduate (*M* = 1.14/4) and graduate (*M* = 1.31/4) levels. This confirms that the Brazilian academic community feels somewhat competent in its general English abilities but remains hesitant to actively teach in the language.

Furthermore, the weak correlations between general proficiency and active classroom talk (*r* = 0.17 for undergraduates and *r* = 0.22 for graduates) demonstrate that simply knowing the language does not, by itself, initiate the pedagogical shift to EMI. These results provide robust evidence that language proficiency acts as a necessary but not sufficient condition for EMI adoption. The transition requires more than individual linguistic competence; it calls for structured institutional support and pedagogical confidence to deliver complex academic content in an additional language.

The limited role of national policy in promoting EMI becomes evident in the evaluation of graduate education. In Brazil, graduate programs are periodically evaluated by the Coordination for the Improvement of Higher Education Personnel (CAPES), a federal agency responsible for regulating and assessing master's and doctoral programs. CAPES ratings are highly consequential because they affect program accreditation, access to funding and scholarships, institutional prestige, and the authorization to maintain or expand graduate-level activities. The criteria established by the agency therefore play an important role in shaping institutional priorities and defining which academic practices receive formal recognition.

Despite the influence of this evaluation system, EMI receives only limited attention within it. The 2025–2028 Area Document for Linguistics and Literature, as well as documents for other fields, includes the provision of courses in languages other than Portuguese within a broader set of complementary internationalization activities. However, the corresponding Evaluation Form does not identify this practice as a specific or separately weighted indicator (CAPES, 2025a, 2025b). Consequently, any incentive to offer courses in English operates indirectly and at the level of the graduate program, without explicit expectations, recognition, or support for individual lecturers. This weak policy signal is consistent with our findings: the use of English for instruction was not systematically associated with higher CAPES program ratings.

The overall low rate of EMI use and the weak correlations between individual English proficiency and teaching practice should be interpreted against this institutional background. Unlike parts of Europe, where initiatives associated with the Bologna Process provided a coordinated policy environment for the expansion of English-taught programs, Brazil has no comparable national strategy for EMI. Its implementation remains fragmented and depends largely on disciplinary traditions, local institutional priorities, and the initiative of individual faculty

members. EMI in Brazil can therefore be characterized primarily as a bottom-up movement rather than a practice systematically promoted or rewarded through the national graduate education evaluation system.

Moving beyond this fragmented, bottom-up model requires coordinated institutional policies and support structures that do not leave EMI implementation solely to individual lecturers. A central component of this transition is the provision of professional development that addresses not only English proficiency but also the pedagogical demands of teaching disciplinary content through an additional language. Such programs should help lecturers develop their pedagogical content knowledge by incorporating scaffolding, designing tasks that intentionally foster student participation, and using translanguaging strategically to facilitate the understanding of complex content and reduce anxiety among both students and instructors. These measures are essential if Brazil is to develop a more structured, inclusive, and equitable EMI environment.

Ultimately, a truly inclusive internationalization strategy must proactively address the social gap to ensure that EMI does not inadvertently reinforce historical patterns of linguistic elitism. By providing targeted English literacy support, HE Institutions can broaden participation and enable students from lower-income backgrounds to engage equitably in the international academic landscape. Future research should investigate how targeted institutional language policies and structured pedagogical training can effectively bridge the gap between faculty's receptive competence and active classroom practice. By focusing on these inclusive initiatives and robust institutional alignment, Brazilian HE can foster a multilingual environment where researchers share their scientific excellence globally without compromising local linguistic vitality.

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5. EMI Implementation at UFSM: Challenges, Opportunities, and Inclusion

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Abstract: Researchers have suggested the relevant role that public Higher Education institutions have in promoting the expansion of access to additional language learning. In the same context, it seems that English as a Medium of Instruction (EMI) may have at least two strategic roles in terms of inclusion in Higher Education: (i) increase interest and institutional support for additional language learning, and (ii) promote spaces for internationalized experiences (e.g. mobility, access to perspectives from other cultures, and international publication output). In this work, we aim to examine the challenges and opportunities at the *Universidade Federal de Santa Maria* (UFSM) for employment of EMI as a tool for such inclusion. Under a qualitative approach, data was collected from the institutional policies and surveys with EMI practitioners and potential practitioners and students. As a result, we identify two main reasons for EMI interest: attracting international students (especially in policy) and widening access to internationalized experiences to home students (particularly in professors' discourse). Further analysis and discussion is needed to reflect the extent to which such faces of inclusion are indeed enacted and critically framed, given the institutional and student body profiles.

Keywords: English-Medium Instruction, Higher Education, Brazil, Policy, Academic Literacies.

Introduction

Internationalization and/or particularly Internationalization at Home (Jones & Reiffenrath, 2018) have been frequent concepts on the research agenda of many scholars in Applied Linguistics. Internationalization has been broadly referred to as the integration of multicultural and multilingual aspects into the designing and delivery of education (Knight, 2005). However, internationalization has frequently been conceived in academic routine as synonym to mobility. On a different path, Internationalization at Home has prompted reflections on the possibilities of such integration within the "domestic" academic environment, which could entail adjustments in the curricula, establishment of joint research projects and co-authorship and inclusion of additional languages in research and teaching practices (Jones & Reiffenrath, 2018; Knight, 2005).

In the scope of this integration, the inclusion of English in the delivery of formal curricular education has been strengthened as an alternative to promote internationalization. This practice, more broadly referred to as English as a Medium of Instruction (hereafter EMI) has been closely associated with efforts to promote Internationalization at Home. Although it has been marked by being a rapidly growing phenomenon around the world (Dearden, 2014), research has frequently mentioned an apparent lack of publications on EMI in/from Latin America (Macaro et al., 2017; Curle et al., 2020). The possible reasons for this perceived lack are varied, and may range from (i) EMI researchers-educators being highly involved with the implementation of and support for EMI rather than its report and analysis to (ii) an uneven distribution of research output from peripheral/Global South regions. Given this scenario, the ICLHE 2025 Conference has contributed to showcase the amplitude and variety of EMI research and practice in the region and particularly in Brazil.

From a critical perspective, EMI may not only be employed as a tool in the internationalization processes of Higher Education Institutions (HEIs), but it may also play an important role in the fostering of access to additional languages (Baumvol & Sarmento, 2019). As a result, developing literacies in additional languages can contribute to including disadvantaged groups into privileged academic forums. In this work, we aim to examine the challenges and opportunities at the *Universidade Federal de Santa Maria* (UFSM) for employment of EMI as a tool for such inclusion.

Inclusion may be a multifaceted concept and in the Brazilian context possibly more directly linked to specialized educational needs, often embedded in the phrase “inclusive education”. In the context of this work, we consider inclusion as a broader issue, which encompasses this meaning targeted at people with disabilities. Inclusion consists in the meaningful involvement of people in the processes, structures, and experiences of an organization, in which these people have the chances to establish connections with others and are valued by the community (Taff & Clifton, 2022). These people involved identify with non-majority or non-traditional identities, such as: first generation, working classes, ethnicity, gender, LGTB+, disability, age. These identities may overlap and sum up their particular challenges, with echoes in one’s previous educational experiences. Brazil has experienced two periods of expansion in its HEI system: the first started in the 1990s with expansion of the system, while the second in the 2000s and 2010s fostered such expansion along with policies to integrate historically excluded groups, such as the affirmative policy named *Lei de Cotas* (Mariuzzo, 2023).

At UFSM, the *Laboratório de Leitura e Redação* (LabLeR, Reading and Writing research and teaching lab) has developed research and teaching initiatives focused on education of language - lately with emphasis on English - teachers and on the linguistic education of the university and regional communities since 1997. These initiatives have also aimed at including people in vulnerable socioeconomic situations into literacies in English in partnership with the Provost of Student Affairs. In addition to participating in these initiatives, we are affiliated with LabLeR’s *Núcleo de Estudos sobre Letramentos Acadêmicos* (NELA, the research group on Academic Literacies), which aims to subsidize the development of pedagogical technologies that contribute to the fostering of agency and authorship of subjects in their knowledge areas under the lenses of Critical Genre Analysis (Motta-Roth & Heberle, 2015) and Academic Literacies - AcLits framework (Lea & Street, 2006). By the lenses of AcLits, literacies are considered as social practices and related to questions of meaning, identity, and power that involve epistemological (what counts as knowledge and knowledge production) and social issues (power relations between people and institutions) (Lea & Street, 2006). Therefore, we consider such theoretical framing as relevant to analyze the EMI scenario in emerging contexts.

Considering the regional diversity, the case of UFSM is representative of part of experiences in Latin America, and may contribute to the strengthening of the available body of research on the topic from a local perspective. We depart from a panorama of the context and of the theoretical grounding and then move to describing the methods. Results and discussions are divided into two sections, one for document analysis and the other entail data from survey and

interview. In the conclusion section, we provide some tentative final remarks and indicate some limitations and room for further development.

Where do We Speak from?

To address part with our involvement with EMI in a very specific context, we have been conducting research about EMI since 2018, when the first and third authors were developing their Final Undergraduate Paper under the supervision of the second author, in response to queries from some professors about the practice and to the presence of mention to it in emerging local policies at the time. Together, the three of us have sought to understand how EMI was understood, appraised, and put into practice. As our experience progressed, we have focused on the professors' experience and, since 2024, in the design and delivery of teacher education opportunities targeted at them as well as directed by their experiences and needs. As of 2025, we have been able to initially gather EMI practitioners and professors interested in adopting EMI around a community.

Considering our research context, UFSM is a public, federal government-funded, free-of-charge HEI located in the southern part of Brazil. Founded in 1960, UFSM was the first federal HEI constructed out of a state capital, and it has grown to comprise around 26,000 students, 2,100 professors, and 2,400 technical-administrative staff in four different cities by the end of 2025.

As a public institution, due to the national affirmative policy of *Lei de Cotas*, half the positions are separated for students who concluded their secondary education in public High School. This quota is subdivided into other groups such as people with disabilities, black and indigenous communities, and attested low socioeconomic status. Additionally, the four UFSM campi are distributed across Rio Grande do Sul state and receive an important number of students from the north, west, and southwest regions of the state, which are close to the borders with Argentina and Uruguay, and lead to Spanish being at close distance and sometimes mediating the practices in which they engage in their daily lives.

In terms of international students, the university has relatively timid numbers, as for mid-January 2026, institutional numbers[5] indicate the presence of 432 active international students at the institution, including refugees, agreements, and students who applied for full programs at UFSM. Spanish and French speaking communities from Latin America and Africa have encompassed the majority of international students coming to UFSM. More recently, groups from Nigeria and Pakistan have increased the share of English-speaking students[6]. Current figures for outgoing student mobility indicate 69 undergraduate students abroad, while postgraduate students, teaching staff (IN and OUT), and administrative staff (IN and OUT) current numbers

5 Available at: https://portal.ufsm.br/ufsm-em-numeros/publico/index.html.

6 Unfortunately, we can only but assume this information considering the official language(s) of the countries from which these students are, as we currently lack linguistic data from home and international students.

are not available. There were 23 long-term leave requests from professors and 209 short-term ones in 2025, although whether ongoing or not and the number of people going abroad (considering one could have gone more than once) is not clear. All numbers on this portal refer to mobility, and no information on Internationalization at Home initiatives, such as EMI, Collaborative Online International Learning (COIL)[7], and language courses are compiled there. This may be symptomatic of the dominant underlying concepts of internationalization in the university structure.

The socioeconomic and geographic profile of the university as well as its mobility numbers raise important questions on (i) how much contact the local students have with English, and (ii) the relevance of EMI adoption. We will address these issues in the following sections.

A Snapshot on English as an Additional Language in Brazil

Proficiency in English has been commonsensically considered a feature of the elite, reinforced by deficit discourses that echoed beliefs such as “if I don’t know Portuguese, how can I learn English” and “why should I learn English if I’m not going to Disney” (Cf. Baumvol & Sarmento, 2019 for further discussion and references). Such discourse reinforces the socioeconomic division by equally reinforcing privileged varieties of languages and economic power, which regulate access to cultural artifacts and experiences for which semiotic capital plays an important role. They draw on traditional English as a Foreign Language ideology by building the proficiency of learners of English as an Additional Language (EAL) - however proficient they may be - as outsiders and failures (Graddol, 2006).

In this context, students often are demotivated to learn additional languages, and structural and curricular restrictions make EAL teachers’ work at primary and secondary education harder. More often than not, students whose EAL learning experiences are circumscribed to public regular schools consist of a sensibilization, an education to a basic level. In that sense, public HEI - whose structure tends to be relatively more robust compared to public schools - may have a crucial role in fostering access to EAL education (Baumvol & Sarmento, 2019). In the sense, being able to co-mobilize additional languages could be understood as a civil right rather than a privilege of few and developing literacies in EAL particularly can serve as a means to increase the scope of forums in which students, as novice academics, can engage. In other words, it is also a matter of “subverting” English in favor of and considering the purposes of these speakers rather than ignoring the imperialist language (Moita Lopes, 1996).

The ability to participate in academic discussions in English can constitute a gatekeeping parameter that potentially emphasizes imbalanced power relations in terms of semiotic capital. Even though, for instance, publishing in English does not guarantee better circulation of knowledge production, the lack of access to EAL can accentuate the distance between local knowledge

7 COIL may be understood as “an approach that aims to provide possibilities of virtual collaboration between HEIs” which has the “potential to foster internationalization even in face of financial limitations” and can be mobilized “as an alternative for academic mobility and international collaboration” (Hildeblando Júnior & Finardi, 2018, p. 20).

production and wider audiences as well as of our own contact with academic practices developed elsewhere throughout the medium of English.

Overall, among other additional languages, English still retains the greatest privilege in basic education curricula. Since 2017, it has become the sole mandatory additional language in schools (Brasil, 2017), which has drained the curricular presence of Spanish in schools. Other languages such as indigenous languages (e.g. Guarani, Kaingang), as languages inherited from migration movements (e.g. German, and Italian) are spoken and taught at schools in very localized circumstances.

At UFSM, during an examination of interest in EMI, students self-assessed their proficiency as relatively higher in reading (26% intermediate and 22% advanced) and lower in speaking (35% beginner and 23% elementary), while writing and listening were well distributed in beginner, elementary, and intermediate around 25% each. Reports of mass testing during the Language without Borders program referred to most of the community scoring A2 (50% of test scores) and B1 (40%) in TOEFL itp (Radünz et al., 2017). Data about other languages are not widely available, although initiatives in that direction are under development[8].

Given such scenarios of additional languages, in the next section, we present a definition to EMI and try to delineate the institutional EMI landscape.

EMI: What's about an Abbreviation?

English as a Medium of Instruction, in this work, is understood as the inclusion of English as one of the languages that mediates teaching and learning interactions/activities in academic disciplines other than English itself (e.g., economics, chemistry, nursing, geography), in contexts where English is an additional language (Baumvol & Sarmento, 2016; Curle et al., 2020; Dafouz & Smit, 2020; Dearden, 2014; Galloway & Rose, 2021; Macaro et al., 2018; Rodrigues et al., 2024). At least three aspects arise from this: (i) the overt valuing of English as a/one language operating in an educational environment rather than an English-only; (ii) a dual perspective of education as teaching and learning, which foregrounds the students' role; and (iii) an explicit product of a choice or a demand to the community for including the additional language.

EMI can play an important role in giving material and authentic situations for language practice rather than simulated. Although in the practice, language learning is generally conceived as somewhat collateral, EMI can both stimulate the search for development of academic literacies in EAL and assist students in acquiring disciplinary terminology and discourse, either in preparatory (prior-to-EMI) and/or concurrent (while-EMI) models (Galloway & Rose, 2021).

Martinez (2016) has proposed a decade ago that Brazil was tipping its toes in relation to EMI and, more recently, Martinez and Palma (2022) stated that Brazil was trying EMI for

8 In 2025, LabLeR has initiated a research project to map proficiency certification presented to postgraduate programs at UFSM. The project is led by professors Roséli Nascimento and Luciane Ticks.

fashion. Such movement seems representative of the evolution of the practice in the country, probably driven by the internationalization experiences of mobility provided by Science without Borders and CAPES-Print programs[9] and of language education by the Languages without Borders program and local writing/language centers, which led to the development of specific internationalization and language policies in many HEIs in Brazil, which until then were absent. This evolution has also been captured in the report by Gimenez et al. (2018) indicating a growth of EMI opportunities from 2016 to 2019. The level of development of EMI in the different HEIs is not balanced, presenting varying levels in terms of EMI courses/programs offered, EMI teacher training initiatives, and EMI research groups. It seems that the development has been mostly organic and bottom-up, especially led by individual professors who decide to endeavor the practice (Ribeiro et al., 2024).

However, for whom is EMI being designed i.e., who is going to benefit from it is yet somewhat unclear, although students and/or the university community in general may frequently be envisioned as such. With this analysis, we hope to shed some light on the topic. In the next section, we describe the method employed.

Method

This research adopts a qualitative paradigm to examine the challenges and opportunities at UFSM for employment of EMI as a tool for inclusion. Data arise from two sets: (i) five institutional policies, and (ii) a set of survey responses first analyzed by Hendges et al (2020) and expanded with interviews by Ribeiro et al. (2024). In relation to set (ii), we depart from the results of these previous studies and try to cross data collected via survey and interviews to provide new interpretations and deepen the mapping of the local EMI scenario.

Considering the first set, institutional routines in public HEI tend to be regulated or oriented by policies, most of which are developed by workgroups represented of the affected segments (students, professors and/or technical staff) and submitted for the appreciation of the pertinent collegiate board. They can be locally valid (for a program, a college/faculty, or the whole HEI) or nationally valid (issued by the Ministry of Education and/or its agencies). These documents provide public agents with legal grounds on which to base their actions and in given situations may provide more sense of institutional safety rather than instability. To the best of our knowledge, there is currently no specific policy for EMI at the national level, and neither at UFSM. Therefore, we decided to focus on local documents, i.e., developed at UFSM. We identified five documents to be relevant for the analysis of EMI and that were analyzed (Chart 1).

9 Science without Borders (2013-2017, last public call published in 2014) was a mobility program maintained by the federal Brazilian government targeted at undergraduate and graduate students from fields such as Engineering, Information Technologies, Health, Agriculture, and Exact Sciences. CAPES-Print was launched as a program of the federal Brazilian government to fund internationalization projects of postgraduate programs, entailing funding for mobility (OUT and IN) of students and professors.

Table 1. Set of relevant documents for EMI at UFSM

Document Name	Short title (for reference)	Issued in	Availability
UFSM's Institutional Development Agenda 2016-2026	PDI	2016	Link
UFSM's Institutional Internationalization Plan 2018-2021	PII	2017	Link
UFSM's Language Policy	Language policy	2018	Link
General Regulation of Stricto Sensu Postgraduate Studies at UFSM	Postgraduate regulation	2023	Link
Regulation of the offer of courses with international exchange components in Basic and Higher Education at UFSM	COIL policy	2025	Link

As to guide data collection in these documents, we addressed the following questions:

- What internationalization activities are described?
- Are there explicit mentions of EMI?
- What is the role of English in internationalization at UFSM?

The lexical items "*internacionalização*" [internationalization], "*língua*" and "*idioma*" [language], and "*inglês*" [English] were used as parameters to a preliminary scanning of the text in order to identify the most relevant sections and excerpts in the documents

Considering the second set, we returned to the data analyzed in previous research stages (Hendges et al., 2020; Ribeiro et al., 2024), focusing on professors' discourses. This time, we tried to explore the motivations, challenges, and opportunities indicated by professors for their (lack of) interest in EMI, now framing the analysis to address the issue of inclusion, which was only preliminarily approached then. The surveys (n=136) and interviews (n=3) were conducted in 2019 and 2020, respectively, and received Ethical Clearance from the local Ethics Committee under Ethical Approval Statement n. 3.470.383.

The following questions were to refine the previous analysis and connect to this work's objective:

- Who is mainly interested in EMI?
- What motivates EMI interest?
- What conditions are necessary to adopt EMI?
- What characteristic marks EMI practice so far?

The data from both sets was triangulated to provide a qualified picture of the EMI scenario at the institution.

Internationalization and EMI in Institutional Policies at UFSM

With exception to the COIL policy, which presents the technical term, the mentions to EMI and Other Languages as Medium of Instruction (OLMI) are indirect, usually under umbrella-terms such as classes in other or foreign languages. No definition is provided as to what such classes entail, and the policies usually and generically address the role institutional agents have in fomenting it at the institution. In parts, particularly in relation to PDI it seems reasonable, as the first document in this series, as being the one in which public contribution is more visibly present in the final version, and as it does not follow the juridical register of the other documents in the set.

In the PDI (Universidade Federal de Santa Maria [UFSM], 2016), “classes in foreign languages” appear as a relevant keyword for the Strategic Objective “Offer opportunities for internationalization experiences to students”, which is nested within the Institutional Challenge 1 - Internationalization. Mentions to EMI/OLMI activities have been present in both students and teachers’ discourses during the construction of the PDI but are only presented as an experience targeted at the former group. As a ten-year institutional agenda, it has encompassed successive revisions on its target plan, adjusting indicators that would demonstrate the extent to which the objectives have been achieved and/or the challenges overcome. In the initial versions of the plan, no metric related to EMI has been adopted, although they are listed among the suggested indicators in the original document. The metrics adopted have focused on mobility (especially IN), international rankings, and research output. In the 2025 proposed revision, the number of EMI/OLMI or COIL courses in postgraduate studies becomes one of the assessed metrics. This appears to indicate that in PDI, EMI was mostly considered an **interest** of the community.

In the PII (UFSM, 2017), it is proposed that flexibilization of programs’ pedagogical projects, including the offer of classes in additional languages and the possibility of writing final papers, dissertations, and theses in other languages. The following excerpts translated from the original document provide an overall picture.

> […] the communication via other languages is indispensable. It is necessary a good domain of the so called lingua franca, position currently occupied by English, to the contact and joint work between people and institutions” (UFSM, 2017, p. 29)
> g) To adopt English as the base language for communication, without disconsidering the particularities of each area and research group.
> h) Massify the offer of language learning among students, professors, and technical staff, aiming at fluency between the agents of internationalization” (UFSM, 2017, p.49)
> g) Offer parts of the undergraduate and graduate curricular courses in the English language (UFSM, 2017, p. 57)

Together with education in additional languages (language courses), these indications appear in the lists, but usually by the end of them. Listing “offering graduate and undergraduate curricular courses in English” as a need to enable PII, we can perceive a movement from interest to an overt **recommendation** of the practice.

In its turn, the Language policy (UFSM, 2018) mainly highlights the relevance and interconnectedness between internationalization and (additional) languages. This document includes as one of its thematic areas the development of technologies and methodologies for the use of languages as media of instruction. However, the Language Policy Commission stipulated by the policy has not been assembled yet, and centralized efforts and institutional authority on the interface of languages and internationalization are still in construction.

Then, in the Postgraduate regulation (UFSM, 2023), international(ization) is frequently mentioned, particularly in relation to mobility. Differently from the previous documents, although short, there is a direct mention in Article 60, which allows postgraduate programs to offer curricular courses in additional languages, conditioning it to the approval from the collegiate council of each program and to the adequate register on the institutional system.

> Art. 60. Postgraduate Programs can offer courses in other languages, since it is approved by the collegiate board and appropriately registered on the institutional system” (UFSM, 2023, p. 15).
> Art. 108. The dissertation or thesis must constitute an authorial, unpublished work written in Portuguese or foreign language, concluding a relevant contribution to the field.
> §1° The adoption of foreign language will be decided by the student in agreement with the respective advisor, considering that the abstract must also be written in Portuguese” (UFSM, 2023, p. 23).

A second movement can be identified here, from recommendation to **institutional permission**, which, as we will discuss in the following section, can be quite pivotal.

Finally, in 2025, the International Relations Office rapidly developed a COIL policy (UFSM, 2025) and established a committee to assist in its implementation. Although some degree of EMI and/or other media of instruction may be expected, the COIL policy only mentions that the language of interaction with the partner institution will be decided by the facilitators (home and international professors), considering the implied multilingual nature of the course with the COIL component.

In the last decade, it is noticeable that the institutional and legal structure has evolved as the late addition of the COIL policy may strengthen the need for a specific EMI policy. Considering these analyzed documents, in terms of internationalization, EMI does not appear to be as much of a priority as mobility and international rankings, although they may have strong connections. Similar to what has been identified as a trend in Brazil (Gimenez et al., 2018), postgraduation

is the preferred locus for the practice and EMI is frequently associated as something for the students, with a relative absence of mention to professors.

EMI in the Discourse of Professors at UFSM

Since 2018, EMI at UFSM has been investigated by our research group. The data set compiled and analyzed by Hendges et al. (2020) included 136 responses of professors to a survey on the interest, needs, motivations, and perspectives on the adoption of EMI at UFSM. Based on the responses to the survey, Ribeiro et al. (2024) deepened the analysis through the interview and the analysis of curriculum vitae of three EMI practitioners identified in the previous studies. We departed from the systematization of these previous studies to identify nuances that allow for the discussion of inclusion within (actual and potential) EMI practices.

In the survey, 65% of the respondents (professors) indicated interest in adopting EMI in their classes. Disciplinary variance was identified, and the faculties in which the interest was higher were Natural and Exact Sciences (75%), Engineering and Technology (86%), Rural Sciences (89%), and Physical Education (100%). Particularly the three first faculties are known to house highly disputed courses (e.g., Chemistry, Civil Engineering, and Veterinary Medicine) and therefore people with higher performance in the admission exams tend to enter. As such, the tendency is that people with a more extensive collection of literacy experiences are admitted.

In terms of motivations to adopt EMI and or to institutionalize EMI offer at the institution, professors' answers and curriculum revolved around issues on mobility, the centrality of English in their disciplinary areas, and their personal interest in languages. On mobility, professors indicated that EMI could play an important role in providing accessibility to the present international students and to attract more as well as to prepare home students for a similar experience abroad. They are adamant in the defense that decisions on media of instruction should be taken considering the pertinence for each research field, emphasizing the bottom-up fashion EMI has had and is likely to continue having at the context. This connects to the disciplinary fields, about which all the interviewed professors indicated that English predominates as the language of scientific output and two of the three professors indicated EMI was already a known/common practice in their postgraduate programs. Resistance, however, is present and influences the practice. Although interested and reporting possible benefits, one of the professors stated that in his department there was great animosity towards English and that they were prohibited from including references in English in their course syllabi.

Their motivations are combined with reported needs and conditions to an institutionalization of EMI offer. These involve mainly flexibility in the adoption of other languages as media of instruction, workshops for teachers to develop proficiency and pedagogical knowledge, and EAP support for teachers and students involved in EMI. Additionally, one of the initiatives to support EMI most indicated by professors was the development of a specific institutional policy. Following Galloway and Rose (2021), their discourse signals an interest in the availability of

both pre-sessional and in-session EAP courses to prepare and support EMI practices. Pre-sessional courses focus on “EMI interested” community, that is, those who wish to engage in EMI practices and for whom education would be preparatory; while in-session refers to education provided more or less concomitantly with engagement in such practices.

As indicated by Ribeiro et al. (2024, p. 48), “[f]lexibility seems to be the key to a successful implementation of EMI, as the modality allows for adjusting depending on participants, contexts, available technologies, purposes”. Such a statement captures our assessment of our participants’ attitude towards EMI and their students, in which they were invited to participate in a challenging situation (the EMI course experience) but were also welcomed with a flexible and adaptable environment to accommodate varying levels of academic literacies. The reported flexibility constitutes a central feature of the experiences, which involve a flow across languages (mostly Portuguese and English in our sample) whenever needed and a focused concern with content rather than with form (language proficiency, accuracy and accent, for instance) (Ribeiro, 2023).

Conclusion

To this point, we addressed data derived from institutional policy analysis and professors’ discourses (both practitioners and potential practitioners) on the theme of EMI as a means to provide an examination of the challenges and opportunities at UFSM for employment of EMI as a tool for inclusion. Firstly, we can ponder a misalignment between policy and people, with the former relatively more interested in incoming mobility, while the latter appears to demonstrate a more balanced concern with exchange experiences and the development of home community, perceivable in their indications of needs and conditions. Nonetheless, mobility is a strong focus of internationalization identified in both data sets. The design of a specific EMI policy, as advocated by our group, could assist in reviewing and aligning the community’s motivations.

Challenges and opportunities are intertwined in the EMI environment. On the one hand, the development of language proficiency and more precisely academic literacy to engage in EMI as frequently a prominent need/concern. On the other hand, the institution counts with a consolidated (over 30-year-old) active language center which seems prepared to provide necessary support, but which also faces a culture in which language development is apparently considered secondary to the main professional education. Further developments on internationalization policy may need to emphasize the central role of language education for the appropriation of professional literacies as well as for internationalization purposes.

In this sense, the development of proficiency - as a civil right for students and perhaps a duty of the public HEI system - may also need to be complemented by the discussion of a culture of valuing learning (in) other languages. One issue for the community is a fear that EMI means an exclusive policy, in which English will substitute Portuguese university-wide and from a top-down fashion. Such recognition of the importance of learning additional languages needs to highlight the enriching potential of expanding one’s semiotic repertoire and a critical

attitude towards it. A good amount of people we meet in EMI training we provide still bear a lot of influence from traditional “foreign language” perspectives and tend to believe that proficiency would be somewhat synonymous to idealized accent standards, which tends to to condemn multilingual speakers to “failure” (Graddol, 2006) instead of fostering their potential to access different practices and experiences

As a result, it is possible to indicate two faces of inclusion in the data sets: (i) inclusion as broadening access of international students to local academic practices and (ii) inclusion as access of home students to privileged literacies and to experiences of internationalizing potential, i.e., that may foster international, multicultural and multilingual learning environments. To both these, language plays a pivotal role in promoting such types of inclusion, but only the Language Policy and the PII address it more consistently. Moreover, there is some mismatch when EMI is frequently referred in relation to postgraduation and the plan of fostering incoming mobility appears to be both in graduate and undergraduate studies as well as whether Internationalization Abroad or at Home are privileged in policy and in agents’ discourses. This might suggest that the inclusion in (ii) could be secondary, and the focus would be on welcoming international students.

In this context, Portuguese as additional language initiatives are essential to fully include international students not only in the academic practices but also in other social practices in the university setting and in the surrounding environment. Nonetheless, little space is provided for it in the analyzed documents. Although language education is addressed in the documents, few concrete measures to foster their inclusion in the academic culture were perceived.

Therefore, the two faces identified refer to a linguistic dimension and indicate a perception of language as regulator of access to privileged practices. One limitation of this study is that we cannot identify whether an educational dimension that considers students’ previous learning experiences and identities to construct knowledge means to fully access Higher Education.

Developing greater awareness of student diversity and needs is central to establishing a contemporary and inclusive educational environment. The Academic Literacies framework seems to provide pertinent principles for this establishment. Discussing EMI under the lenses of Academic Literacies - as reflected upon by Lea and Street (2006) - involves reflecting on the motivations and implication on the level of agents and institutions, regulation of access, and valuing of experiences, perspectives and semiotic resources brought by each participant. As a consequence, questions arise about the intended EMI classroom, which may include:

1) What are the accepted knowledge***s*** and respective knowers/sources?
2) What is allowed to be said? How (as semiotic resource, language, accent, and/or register, for example)? And by whom?
3) Who is the EMI classroom for? Is it to attract students, to foster home students’ array of experiences/prospects, or amalgam of both?

4) What are the structural/institutional initiatives to support EMI? Are people expected to be “ready” to engage in EMI practices? Is university willing and dedicated to assisting people in accessing such experiences?

However, this study is limited to identifying efforts at the **linguistic level** to encourage the development and valuing of students’ repertoires. In addition to the linguistic level, an EMI course design informed by Academic Literacies principles would position professors as mediators between disciplinary knowledge and students’ prior knowledge (**content level**) and students as the central agents in the classroom (**class level**) (Ribeiro, 2023). These principles may assist non-traditional/marginalized groups to meaningfully participate and benefit from EMI.

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6. Learners' Perceptions of EMI and Internationalization at the Federal University of Pará

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Abstract: This study investigated how undergraduate and graduate students at the Federal University of Pará (UFPA), located in Brazil's Northern Region, a linguistically and culturally unique area, perceive internationalization and the use of English as a Medium of Instruction (EMI) in their coursework. By using a mixed methods approach, data were collected through an online questionnaire administered via Google Forms to students with experience in EMI and internationalization initiatives. Quantitative and qualitative analyses revealed that participants generally perceive EMI as beneficial to their academic development and linguistic confidence, positioning EMI as a relevant internationalization-at-home strategy. However, the findings also highlight persistent challenges, including insecurity, anxiety, and difficulties with technical vocabulary and oral production, which were linked not only to language proficiency but also to pressures associated with linguistic norms and conceptions of English as the language of academic success. In addition, participants reported limited institutional support, indicating that motivation alone is insufficient without expanded language policies, pedagogical preparation, and inclusive EMI practices. These results contribute to ongoing debates on internationalization in Brazilian higher education by underscoring the need for context-sensitive and inclusive approaches to EMI.

Keywords: English as a Medium of Instruction, Internationalization, Federal University of Pará.

Introduction

Having increased significantly over the past few decades, the Internationalization of Higher Education (IoHE) has emerged as a consolidated global trend, directly affecting academic practices, student mobility, and knowledge production. Internationalization can be defined as "the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of post-secondary education" (Knight, 2003, p. 2).

Emerging in the context of globalization, internationalization is characterized by the growth of integration, exchange, and interdependence between countries and regions worldwide (De Wit, 2020). This process has led to changes in how universities approach teaching, research, and institutional policies, demanding new approaches to strengthen their presence in the global academic landscape.

In this context, studies such as Galloway *et al*. (2020) point out an increase in the use of the English language in internationalization initiatives in higher education institutions. In alignment with the emergence of English as a *lingua franca*, this pattern reinforces the role of English as the predominant medium for academic exchange in global contexts.

The phenomenon of internationalization has also fostered debates on linguistic equity, access, and the implications and advantages of using English as a Medium of Instruction (EMI), understood as "the use of English to teach a non-language subject in a context where English is not the official language" (Galloway et al., 2020, p. 2), and viewed by Dearden (2014) as a strategy of Internationalization at Home (IaH).

As a relatively recent process in Brazil, IoHE has assumed its own specific characteristics, especially in outlying regions distant from major centers, such as the Northern Region, which presents distinctive linguistic, cultural, and socioeconomic features (Moreira et al., 2024). In this way, IoHE aims to contribute to global development through education and research, and to compete with other international institutions in global higher education rankings.

Under these circumstances, English has become a central element perceived both as a tool for academic communication and as a symbolic marker of international prestige. However, the adoption of EMI in Brazilian universities, particularly in the Northern Region, has revealed opportunities as well as challenges: while it opens pathways for intercultural engagement and knowledge exchange through global academic and professional networking, it also exposes inequalities related to language proficiency and access to institutional resources and opportunities.

In this framework, this study seeks to investigate how undergraduate and postgraduate students at the Federal University of Pará (UFPA) perceive the internationalization process and the adoption of EMI in their courses. The relevance of this research lies in the lack of information about students' perceptions and experiences with internationalization actions promoted by their universities.

Employing a mixed-methods approach, this study uses a survey administered through *Google Forms* to understand students' experiences, expectations, and challenges related to EMI. The choice of UFPA as the research site is particularly relevant due to its unique characteristics, which offer valuable insights into how IoHE is experienced outside major academic centers.

Thus, in order to enhance contextualization, this paper is structured into the following sections: Theoretical Framework, Methodology, Results and Discussion, and Final Considerations.

Internationalization of higher education

The IoHE has become a central theme in global academic debates, with its roots in the phenomenon of globalization (Knight, 2003). Its most widely accepted definition is provided by Knight (2003), who conceptualizes internationalization as the process of integrating an international and intercultural dimension into the teaching, research, and service functions of higher education institutions.

Studies indicate that, despite its benefits, IoHE is often shaped by competitive and economy-driven paradigms that reproduce global inequalities, privileging the Global North and marginalizing local specificities (de Wit et al., 2015). Incidentally, concerned with the qualitative dimensions of internationalization rather than competitiveness, elitism, and market orientation, de Wit (2015) extended Knight's definition by defining internationalization as:

> The intentional process of integrating an international, intercultural or global dimension into the purpose, functions and delivery of post-secondary education, in order to enhance the quality of education and research for all students and staff and to make a meaningful contribution to society. (de Wit et al., 2015, p. 281).

This perspective highlights that internationalization is not limited to the mobility of students and staff but also encompasses institutional strategies, academic practices, and policies aimed at increasing the global presence of universities, while also promoting quality improvement and generating benefits and positive impacts for society.

In regions such as Latin America, particularly in Brazil, scholars such as Morosini (2006, 2011) and Leal (2020) argue that internationalization must be considered in the specific socio-historical context of each region, rather than through the simple importation of a universal model from the Global North.

These particularities highlight the importance of IaH, understood as “the purposeful integration of international and intercultural dimensions into the formal and informal curriculum for all students within domestic learning environments” (Beelen & Jones, 2015, p. 69). Such an approach does not rely exclusively on physical mobility but on online and on-site activities that aim to prepare students for a global context of academic interaction and exchange, a relevant strategy for countries like Brazil, where economic, social, and linguistic inequalities create barriers to international mobility programs.

To align with the global movement among universities, the Brazilian government adopted several initiatives to foster IoHE in public universities. One of the most notable programs was *Ciência sem Fronteiras* (Science Without Borders - SWB), launched in 2011, which aimed to promote mobility by funding scholarships abroad in strategic areas of science and technology (McManus & Nobre, 2017).

Although the program enabled thousands of Brazilian students to study overseas, SWB’s lack of sustainability, limited integration with domestic universities, and lack of policies aimed at long-term impact were also the subject of criticism (Barbosa et al., 2022). In addition to SWB and other government programs, universities themselves have developed institutional strategies, such as establishing partnerships with foreign institutions and expanding the use of English in academic contexts, particularly through EMI.

Despite these advances, internationalization in Brazil remains unequal, with most initiatives and opportunities for international cooperation concentrated in universities in the South and Southeast, where resources and international partnerships are more accessible (Morosini, 2011). Institutions in the North, for example, face some limitations, including a lack of regular language education initiatives aimed at the academic community, which reinforces structural inequalities and highlights the need for more studies on how internationalization takes shape in less privileged regions (Moreira et al., 2024).

In light of the discussion above, the challenges for Brazilian higher education lie in integrating Brazilian institutions into global networks, as pointed out by Morosini (2014) in her discussion on Global South challenges, while also ensuring that this process values local knowledge, cultural diversity, and regional specificities. In this context, IoHE should not be viewed only as a strategy to compete in global rankings, but rather as an opportunity to foster practices that

prepare students to engage with global perspectives while remaining rooted in their own cultural and social realities.

After presenting the main concepts of internationalization, the subsequent section provides an overview of EMI.

English as a Medium of Instruction

With the expansion of IoHE over the past few decades, the use of EMI has become one of its most significant strategies. Dearden (2014, p. 04) defines EMI as “the use of the English language to teach academic subjects in countries or jurisdictions where the first language (L1) of the majority of the population is not English”.

This conceptualization differs from approaches such as *Content and Language Integrated Learning* (CLIL), which integrates the teaching of subject content and the development of language skills, particularly in primary and secondary education. While CLIL is mainly oriented toward language acquisition, EMI in higher education is more commonly adopted as an institutional strategy for internationalization, aiming to attract international students, enhance visibility in global rankings, and expand access to international knowledge networks (Dearden, 2014; Baumvol, 2016).

There are several advantages to adopting EMI in higher education, particularly its role in promoting the global integration of institutions by enabling greater participation in international collaborations, research projects, and exchange programs, broadening students’ and staff’s access to international publications, conferences, and academic networks, enhancing English proficiency, and strengthening institutional competitiveness and international prestige (Galloway, 2020; Baumvol, 2016).

Nevertheless, the implementation of EMI is accompanied by limitations and critical concerns. As pointed out by Tollefson and Tsui (2014), the medium of instruction presents many challenges, such as the risk of linguistic exclusion, highlighting the need for policies designed for social, economic, and political contexts. The scarcity of such policies can result in unequal access to learning opportunities, thereby exacerbating existing social and educational inequalities.

In her literature review, Galloway (2020) also identifies many challenges regarding studying through EMI, such as language-related, institutional/organizational, culture-related, and material-related challenges. The first and third ones affect both students and staff, revealing the importance of considering language and cultural aspects in language policies regarding the use of EMI in higher education. “Content lecturers using EMI need to be prepared to teach student groups with diverse cultural backgrounds, which includes diverse expectations of an academic context as students might have little understanding of the local education system” (Galloway, 2020, p. 35).

For the reasons presented above, the adoption of EMI must be critically analyzed and carefully adapted to specific institutional and regional contexts, as well as the social and

economic conditions of students and staff. While it represents a powerful strategy to promote internationalization and expand academic opportunities, EMI also requires sustained actions to prepare and support its implementation, such as language training programs and intercultural preparation. Without such measures, EMI risks reinforcing inequalities rather than promoting inclusive internationalization.

Regarding the Brazilian context, higher education institutions joined the trend as universities aim to increase their global standing, attract international students, and expand participation in international research networks (Gimenez et al., 2021). EMI is thus often seen as both a symbol and a tool of internationalization, considering Knight's (2004) definition of the process.

During this process, EMI has generated tensions between global and local agendas. As Altbach and Knight (2007) point out, internationalization often reflects asymmetrical flows of knowledge, where institutions in the Global South are pressured to conform to models imported from the Global North.

In the Brazilian case, this dynamic can be observed in the emphasis on EMI as a strategy used by higher education institutions to climb global rankings, frequently at the expense of policies that promote linguistic diversity and contextual relevance (Gimenez et al., 2021).

Despite these challenges, authors have pointed out that EMI in Brazil also opens important opportunities. For instance, Finardi (2016) and Moreira et al. (2024) reinforce the view of EMI as a means of enhancing students' cognitive-academic skills, facilitating access to international publications, and fostering intercultural awareness.

In addition, initiatives associated with internationalization at home (Beelen & Jones, 2015) suggest that EMI can be used to expand international experiences to a larger number of students, including those who cannot participate in mobility programs (Gimenez et al., 2021). In this sense, EMI can contribute to democratizing internationalization if supported by policies that address inequality and promote inclusive practices. As highlighted by Guimarães and Finardi (2021), Collaborative Online International Learning (COIL) is an alternative to reinforce these abovementioned inclusive practices, since it involves intercultural communication and does not require massive financial support or traveling.

To summarize, the Brazilian case reveals a paradoxical and complex scenario: on the one hand, EMI represents an opportunity for universities to increase international visibility, integrate into global knowledge flows, and provide students with new learning experiences; on the other hand, it risks expanding social and regional inequalities, oppressing local languages and knowledge, and aligning higher education with capitalist-oriented logics of competitiveness.

Therefore, EMI in Brazil should not be seen as a mere adoption of international models, but as a well-debated practice shaped by tensions between global demands and local realities. Its future development depends on how institutions balance internationalization goals with equity, diversity, social responsibility, and local particularities.

Following the theoretical framework, the next section presents the methodological procedures.

Methodology

This study employed a mixed-methods approach (Creswell, 2014) to investigate how undergraduate and postgraduate students at the Federal University of Pará (UFPA) perceive the internationalization process and the adoption of English as a Medium of Instruction (EMI).

UFPA, a public higher education institution located in the Northern Region of Brazil, has established institutional policies focused on Internationalization and EMI implementation, including academic mobility programs, internationalization at home initiatives, free English language courses, and exchange programs in collaboration with universities around the globe (Moreira & Timmermann, 2024; Moreira et al., 2024). These initiatives provide a relevant context for investigating students' experiences and perceptions of internationalization and EMI.

At UFPA, EMI has gradually moved from a set of isolated initiatives to a more visible, yet still uneven, institutional practice linked to internationalization goals. EMI courses have been offered across multiple areas and levels, which signals that the modality is not restricted to language-related fields or to a single campus. This expansion follows the institutional mapping of EMI experiences and the existence of a foreign-language course catalogue that includes offerings in English (and, in some cases, Spanish), ranging from undergraduate to graduate contexts and involving different academic units. At the same time, EMI's transversal potential reveals a structural fragility: without stable mechanisms for registration, systematic dissemination, and coordinated planning, EMI risks remaining dependent on individual faculty agency rather than consolidating as a coherent institutional policy.

According to the UFPA International Course Catalogue 2024 and the detailed Course Catalogue 2024 (updated 12 May 2025), UFPA listed 12 foreign language course offerings for 2024: 9 taught in English, 2 in Spanish, and 1 in English with Portuguese support; 4 are at undergraduate level and 8 at graduate level; the offers span 9 different academic units (with the Institute of Biological Sciences concentrating 3 courses and the Institute of Technology, 2), and they are distributed across 3 campuses, with Belém concentrating 10 courses, plus 1 in Castanhal and 1 in Salinópolis. In terms of delivery format, 8 are in-class, 3 are hybrid, and 1 is online.

Data were collected through an online questionnaire composed of 19 questions and administered through Google Forms composed of 19 questions aimed at describing undergraduate and graduate students' sociodemographic and academic profiles, experiences with courses taught in English, experiences with EMI, and experiences with internationalization actions promoted by UFPA. Both open-ended questions and Likert-scale questions (Koo & Yang, 2025) were used in the questionnaire, allowing participants to elaborate on their experiences and perceptions.

Participants consisted of undergraduate and postgraduate students enrolled at UFPA. The recruitment strategy was based on institutional communication channels and voluntary participation. All responses were collected anonymously.

Quantitative data obtained through Likert-scale items were analyzed with a focus on frequency distributions and measures of central tendency. Qualitative data acquired through open-ended questions were analyzed through thematic identification and interpretation. The research respected ethical principles by ensuring voluntary participation and anonymity of respondents.

Results and Discussion

The central question in this article explores how UFPA students recognize the use of EMI as a tool for internationalization. To that end, 31 EMI students responded to an online survey that collected both quantitative and qualitative data. Responses were analyzed to address the following research questions: a) what specific benefits and challenges do students find in EMI at UFPA? b) in what ways do beliefs about English as the “language of science” influence students’ motivation to take EMI courses? c) what institutional support do UFPA students identify as essential for an effective and inclusive EMI experience?

Participants were predominantly graduate students (74.2%) and from Belém (87.1%). Only 9.7% were from Bragança and 3.2% from Ananindeua. Gender-wise, 51.6% of respondents were female while male and non-identified participants corresponded to 41.9% and 6.5%, respectively. Regarding participants’ proficiency level, only half of them reported having an advanced level English proficiency, while 12.5% self-identified as intermediate and 37.5% as beginners. This sheds light on social and linguistic constraints that shape unequal access to English language learning across the Amazon region. It also suggests structural disparities in educational background even among Belem students.

Despite socio-educational gaps, respondents’ overall perception of the benefits and difficulties of EMI is interestingly similar. For instance, a mean score of 4.62 on a 1-to-5 Likert-scale demonstrated a positive perception of the contribution of English-taught classes to their academic development. This perception is even clearer among students with more experience in this instructional modality. Qualitative data further support this finding and reveal multidimensional benefits. For instance, one participant reported that EMI “facilitated the acquisition of diverse knowledge more quickly” while another stated that “the disciplines taught in English allowed me to, in addition to practicing with native speakers and overcoming my fear of speaking, improve my vocabulary constantly with new words and experiences”. This demonstrated the development of linguistic confidence and communicative competence, suggesting that EMI provides a unique academic context for English language practice that differs from traditional language courses.

A common view amongst respondents, therefore, is that the benefits of EMI instruction go beyond language and content: participants associated EMI with higher self-confidence and access to diversified knowledge which potentially prepares them to access global communities, as noted by a respondent who said that EMI “expanded my understanding of phenomena since I became aware of greater diversity of methods and perspectives” and another one who said that it (EMI) “increases the international potential of academic work”.

These responses contrast with significant challenges identified by respondents with EMI experience, notably insecurity (62.5%), technical vocabulary (50%), and oral production (37.5%) – even among higher proficiency students. Negative feelings related to such challenges, especially anxiety, were curiously associated not only with limited English proficiency, but also with existing pressure to an idealized standard of English as well as the devaluation of translanguaging practices. According to Silva and Signorini (2021), this is a result of institutional structures that define linguistic "success" as native-speakerism, creating pressure for unattainable standards that are disconnected from the real needs of academic communication. This is evidence that linguistic barriers include not only formal aspects (such as vocabulary) or communication skills, but also an ideology of linguistic legitimacy that privileges "standard" English as the default pathway to academic success and social mobility. Drawing on Silva and Signorini's theoretical framework, these findings suggest that even high-proficiency UFPA students experience insecurity not primarily due to language limitations, but due to pressure to conform to an idealized monolingual and native-speaker standard.

This discussion leads us to examine how beliefs about English as the "language of science" shape students' motivation to enroll in EMI courses. With a mean score of 4.5 on the Likert scale, overall motivation is clearly strong among respondents. Qualitative data revealed that respondents believe that the global importance of English generates career opportunities. This is illustrated by a respondent who declared English is "indispensable professionally"; another one stated that EMI "increases the international potential of academic work". Although it is not the focus of this work, we can notice that COIL initiatives could help improve the development of this potential.

What is surprising is that the idea of English as the "lingua franca of science" is double-edged. On the one hand, this ideology positions English as a gateway to both global visibility and international insertion. On the other hand, it generates exclusion by devaluing multilingualism and reducing internationalization to a matter of English proficiency. Moreover, the English that is valued is not just any English, but one associated with an inner circle of nativeness found in countries that have historically claimed ownership of the language, such as England and the United States — a concept referred to by Canagarajah (2006) as "Metropolitan English."

In this regard, the present study seems to be consistent with the findings of Taquini and Finardi's (2021) study of Taquini and Finardi (2021) in their study of EMI at the Federal University of Espírito Santo (UFES). In the face of this monolingual ideology, the authors argued that truly effective internationalization must recognize and value a multilingual environment.

One unanticipated finding was that motivation and English alone are not seen as sufficient for global integration. The mean response of only 2.87 on a 5-point scale revealed that students believe UFPA's internationalization actions provide inadequate support for transforming motivation into actual development of competencies. This speaks directly to the third question in this research which examines what institutional supports UFPA's students identify as essential for an effective and inclusive EMI experience.

In response to the question “What actions could the university take to improve the EMI experience for students?”, a range of responses were critical and constructive, offering valuable clues for policy formulation. A common view amongst participants is that UFPA should significantly expand and provide access to free foreign language courses. They recognize that the university already offers courses in English and French but indicate the constraints regarding the number of spots and publicity. One respondent stated that “there is a limitation in reaching students; the number of free courses per year is limited. This all generates limited access for students” while another student expressed the desire to see “an increase in the number of free English courses and, furthermore, workshops available in two languages”.

Innovative models were also suggested, such as bilingual workshops, which led to a second strong recommendation found in responses: teacher training and pedagogical adaptation. One respondent suggested “teacher training, conversation courses,” while another proposed “the creation of more inclusive dynamics for students in preparatory courses (which already exist in the institution), in addition to increasing the number of course offerings and distributing bilingual and accessible materials.” These suggestions revealed that students recognize EMI as a distinct pedagogical practice rather than merely a switch in the language of instruction. In this light, respondents suggest the creation of interaction and practice spaces referred to as “regular public events in English”, “seminars for presenting work in English”, and “conversation groups”. One respondent proposed “regular public events in English on diverse themes. A mix of lectures, discussion panels, etc., with social time afterward.” Another suggested “seminars for presenting work in English, both for undergraduate and graduate students, for example, this would enable students to become increasingly accustomed to technical vocabulary, in addition to working on presentation skills and the shame that many feel”. Together, these results point to an institutional vision of EMI as an ecosystem that includes trained instructors who establish welcoming and immersive learning environments by integrating content and language while reducing negative feelings that can undermine oral participation.

The EMI ecosystem suggested by these students reflects what Gimenez et al. (2021) referred to as a reconfiguration-oriented approach in which the EMI model is questioned and problematized. By contrast, the authors suggested an accommodation-oriented approach with a focus on consolidating institutional practices that inform linguistic policies and advance internationalization.

Final Considerations

This study aimed to examine how undergraduate and postgraduate students at UFPA perceive EMI as a tool for internationalization. Using a mixed-methods approach, the research explored students’ experiences and views on institutional actions related to EMI practices.

Overall, findings show that participants have a positive view of EMI, particularly in relation to academic development and increased linguistic confidence. EMI was thus understood as a

meaningful form of internationalization-at-home, especially in contexts where physical mobility remains limited.

At the same time, data revealed that EMI-related language challenges persist, such as insecurity, anxiety, and difficulties with technical vocabulary and oral production. These challenges were not attributed solely to limited language proficiency but were also associated with pressures linked to native-speaker norms and conceptions of academic success related to English as “the language of science”. Those views emerged simultaneously as motivating and exclusionary factors in students’ participation in EMI initiatives provided by the institution

Participants also highlighted institutional support limitations, suggesting that motivation alone is not enough without expanded access to free language courses and pedagogical preparation for EMI instructors. These findings indicate that effective EMI implementation at UFPA requires well-planned actions involving multiple institutional areas and pursuing the valorization of multilingualism, the reduction of linguistic barriers, and the integration of content and language learning.

Despite limitations related to the number of participants, this study contributes to discussions on EMI in Global South contexts, more specifically the Brazilian context, by foregrounding students’ perspectives and experiences. The findings underscore the need to move beyond instrumental and monolingual approaches to EMI toward more inclusive and critically informed models of internationalization.

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Part II

Lecturers, Support, and Professional Development

7. EMI Teachers' Language Support Needs Across Contexts: Cause for Tensions and Opportunities for Inclusion

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Abstract: In many locations where English-medium instruction (EMI) has been implemented, a need for language support for EMI teachers has been identified. Based on open-ended survey responses from EMI teachers in higher education institutions in Brazil (*n* = 114) and Sweden (*n* = 1,402) regarding their own and their colleagues' language support needs and guided by the ROAD-MAPPING framework (Dafouz & Smit, 2016), this study explores EMI teachers' positions towards language support. The findings reveal underlying language ideologies, social structures, and contextual differences that shape EMI teachers' perceptions and feelings of inclusion and exclusion. Interestingly, in both contexts, teachers more often identified language support needs among their colleagues than for themselves. This pattern raises questions about how such needs are recognised and voiced within the EMI teaching community. These dynamics demonstrate the need for language support systems that are both inclusive and sufficiently tailored to different teacher profiles, including those who might otherwise not recognise themselves as needing support.

Keywords: English-medium instruction, language support, EMI teachers, cross-contextual research, ROAD-MAPPING.

Introduction

The use of English in higher education (HE) is expanding worldwide, yet English-medium instruction (EMI) remains uneven across regions and disciplines (e.g., British Council, 2024). Despite its widespread implementation, concerns persist regarding the quality of teaching through a foreign language (e.g., Akıncıoğlu, 2024). Research highlights that EMI teachers need a high level of English proficiency to support student engagement with disciplinary discourse, and facilitate understanding of the content, terminology and concepts through definitions and illustrative examples (Molino et al., 2022).

Over a decade ago, Ball and Lindsay (2012) reported that EMI teachers recognised the need for language support, expressing insecurity when teaching in English. More recently, Wang (2021) found a correlation between EMI teachers' teaching self-efficacy and classroom English proficiency, reinforcing the critical role of language in EMI classrooms. However, a recent study found that professional development and self-efficacy strongly shape teaching approaches, while language proficiency plays a modest role in an already highly proficient context (Vander Borght et al., 2025).

While research underscores the influence of pedagogical skills and confidence on teaching approaches, comparatively less attention has been paid to the language challenges teachers encounter after achieving a certain level of English proficiency. In addition, existing support initiatives often focus on general language improvement rather than the pedagogically embedded language practices essential for effective EMI. At the same time, as Molino et al. (2022) note, EMI-teacher training varies across contexts.

Therefore, this study aims to explore EMI teachers' perceived needs of language support, considering both their own and colleagues' needs across two contexts: Sweden and Brazil. These two contexts are of particular interest, as they are characterised by different levels of EMI implementation, allowing for an examination of how institutional and cultural factors shape these perceptions. This study is guided by the following research question: *How do EMI teachers in Sweden and Brazil perceive their own and their colleagues' needs for language support, and how do these perceptions differ across the two contexts?*

Background

Although EMI has been widely adopted and disciplinary teachers are encouraged to implement it, many teachers receive limited institutional support and have few opportunities for professional development that could enhance their EMI teaching (Airey, 2011). Research consistently indicates that EMI teachers desire greater support. For example, Ball and Lindsay's (2012) questionnaire study of 44 EMI teachers in Spain found that participants expressed insecurity related to their English language proficiency levels and highlighted needing support. Similarly, Guarda and Helm (2017) found teachers were primarily concerned about their language proficiency. Notably, the teachers surveyed by Guarda and Helm (2016) highlighted the importance of a high level of English language proficiency for adopting student-centred teaching approaches, understanding students and facilitating classroom discussions.

Evidence from larger international studies suggests that these concerns are widespread. Macaro et al. (2020) explored the perspectives of almost 500 teachers regarding professional development and found that 61.4% of participating EMI teachers across several countries (e.g., Brazil, China, and Spain) had not participated in any professional development specifically related to EMI. Moreover, fewer than one third of respondents reported that their institution offers any form of certification demonstrating competence to teach their subject in English. These findings point to a broader international pattern of limited institutional provision for EMI teacher preparation.

The lack of support is particularly concerning because disciplinary expertise and advanced academic literacy do not automatically prepare teachers for EMI classrooms. While doctoral education often develops reading and writing skills, these skills do not necessarily enable teachers to clearly explain complex concepts, making classroom content more accessible and understandable for students (Sun, 2023). Consistent with this observation, Dimova and Kling (2018) interviewed ten Danish EMI teachers and concluded that the teachers were confident in their academic discipline, but the challenges they experienced were mainly related to language. These difficulties often involved general vocabulary required to teach new subject content to students.

The pedagogical implications of such language-related challenges have received increasing attention. Previous research has identified translanguaging or code-switching (i.e., shifting from

the main instruction language to another language) as a potentially effective tool to facilitate interaction and understanding in EMI classrooms (Paulsrud et al., 2021). However, Molino (2023, p. 120) cautioned that “code-switching may not be beneficial to all, risking the exclusion of some participants from the co-construction of meanings”. Similarly, Richards and Pun (2023) argued that teachers may become overly reliant on translanguaging, potentially reducing students’ opportunities to engage with academic content in English. These findings suggest that teachers require support not only in language proficiency itself but also in making informed pedagogical decisions about language use in the classroom (cf. Vander Borght et al., 2025).

Research further indicates that content teachers tend to prioritise subject matter over language development (e.g., Airey, 2011), even if EMI is often promoted as a way to enhance students’ English proficiency. Molino (2023) similarly argued that a certain level of language proficiency is needed to ensure quality of instruction in EMI: “Failing to address the issue of insufficient language proficiency among lecturers poses the risk of compromising the effectiveness of EMI programmes, and ultimately failing students who rely on them” (p. 86).

Language-related challenges are closely connected to EMI teachers’ professional identities. A recent scoping review of EMI literature across Europe also identified language as a key theme, including concerns about language proficiency and how this influences EMI teachers’ identity (Gronchi & Hopkyns, 2025). These findings resonate with earlier work showing teachers’ insecurity related to language proficiency (Ball & Lindsay, 2012) and feelings of restrictions in terms of flexibility and fluency (Airey, 2011).

Language ideologies may further shape how teachers experience EMI. For example, native speakerism can negatively affect teachers’ confidence (Molino et al., 2022). In response, Yuan (2020) emphasised the importance of encouraging EMI teachers’ ownership of English as a world language to ensure effective EMI practice, which entails clear and meaningful communication rather than conforming to native-speaker norms.

Beyond language proficiency, professional identity also involves recognition by others. Gronchi and Hopkyns (2025) highlighted professional and emotional struggles that have been overlooked in EMI research, while citing Hyland (2012) on the crucial role of recognition by others in shaping identity. Hyland notes that “we form our individual identities by seeing ourselves as other people see us” (p. 4), highlighting the relational nature of identity construction and the importance of understanding how EMI teachers position themselves within their professional communities. Against this backdrop, it becomes relevant to consider how teachers describe their own and their colleagues’ roles and needs, particularly regarding language support.

Despite growing attention to language, identity, and professional development in EMI, relatively little research has examined these relational dimensions from multiple perspectives, particularly how teachers perceive the needs and challenges of their colleagues. One exception is Bolton and Kuteeva (2012), who surveyed teaching staff at a Swedish university, investigating their attitudes towards the use of English in HE. They found that most teachers agreed first language English speakers are inequitably advantaged with the prominence of English in HE, but the majority disagreed that they were personally disadvantaged.

More broadly, EMI research draws on teachers' and students' accounts to understand processes and practices within HE institutions, such as in the literature reviewed above. Such accounts can illuminate organisational arrangements, expectations and pressures, and thereby contribute to the design of effective professional development and policy measures. However, more research is needed to understand how EMI teachers construct their own professional identities while simultaneously interpreting the support needs of their colleagues.

Conceptual Framework

To connect these self- and other-oriented accounts across the two study contexts, I employ a conceptual framework that enables a systematic comparison of EMI scenarios in Sweden and Brazil. The ROAD-MAPPING (RM) framework (Dafouz & Smit, 2016, 2020, 2023) offers a holistic and flexible approach for analysing the complexity of EMI across diverse settings.

ROAD-MAPPING Framework

A decade ago, Dafouz and Smit (2016) introduced a conceptual framework that offers a flexible model for multilingual HE. It draws on sociolinguistic and ecolinguistic orientations and discursive approaches to analyse diverse contexts, while emphasizing the dynamic influence of both global and local forces. The framework has been adopted by multiple researchers around the world and for different purposes (see e.g., Dafouz & Smit, 2023). It centres on discourses and six dimensions that form the acronym, as presented in Table 1.

Table 1. Dimensions of the ROAD-MAPPING Framework (adapted from Dafouz & Smit, 2023)

Dimension	**Definition**
Roles of Englishes (RO)	RO addresses the communicative roles of language in HE, emphasizing English as the primary medium while acknowledging its dynamic interaction with other languages and its dual function as both code and communicative resource within societal, institutional, pedagogical, and communicational contexts.
Academic Disciplines (AD)	AD combines academic literacies and disciplinary culture: the socially situated practices shaping spoken and written academic work, and subject-specific norms and values that shape knowledge construction and community participation.
Language Management (M)	M concerns deliberate efforts to influence language use through policies and official documents, varying by type, targeted languages, and communicative focus.
Agents (A)	A encompasses individuals and groups at different institutional and sociopolitical levels whose actions shape change, influenced by status, priorities, and English proficiency.
Practices and Processes (PP)	PP examines administrative, research, and teaching activities that shape and reflect contexts, enabling analysis across levels, from classroom discourse to internationalisation strategies.
Internationalisation and Glocalisation (ING)	ING captures tensions and synergies within globalised HE, where transnational influences meet local and national priorities.

This comprehensive framework has proven effective for examining the complexities of multilingualism and comparing EMI contexts. Accordingly, I adopted RM to address the research aim of this study: exploring EMI teachers' own and colleagues' need for language support across contexts.

Methodology

To explore EMI teachers' perceptions of their own and colleagues' need for language support, I analysed survey responses from in-service as well as pre-service EMI teachers in Swedish and Brazilian HE. An embedded mixed-methods design was employed, in which quantitative and qualitative data were collected concurrently. The qualitative data served as the primary focus, with the quantitative data playing a supportive role, as is in line with the embedded design described by Creswell and Plano Clark (2011).

This section describes the sampling, investigated contexts, and participants' information, alongside the used instrument and data analysis of the study.

Sampling and Contexts

A digital survey was used to engage with EMI teachers and included a definition of EMI to help respondents determine whether it applied to their teaching context: "contexts where English is a teaching language used for all or most types of classroom interaction". The recruitment strategy combined purposeful and snowball sampling. I distributed the survey to a broad pool of EMI teachers, inviting them to complete and forward the survey within their networks. Participants had to be in-service EMI teachers or planning to teach in English in the near future.

Specifically, I recruited participants in two contexts: Sweden and Brazil. Sweden was an early adopter of EMI and has played a leading role in EMI implementation in Europe (Mežek & Björkman, 2024). The number of international staff and researchers recruited has nearly doubled in the past decade; foreign-born staff in Swedish HE increased from 31% to 69% between 2008 and 2018 (Silander & Pietliä, 2023). Currently, 62% of Swedish master's programmes are taught in English, and some universities offer only English-medium courses at this level (Malmström & Pecorari, 2024).

By contrast, EMI in Brazil is expanding but remains less predominant. There is no official estimate for this data, but a 2018 British Council report on Brazil offers some quantitative insights (Gimenez et al., 2018). According to the report, Brazil's HE system then comprised 2,407 institutions, and in a 2017 pilot study involving 158 institutions, 64% reported offering EMI courses or programmes. These figures require caution, as they represent only a small proportion of Brazil's HE system and the extent of EMI implementation in these institutions is unclear.

The differing extent of EMI implementation in Sweden and Brazil can be attributed to the distinct trajectories of HE internationalisation. In Brazil, internationalisation is a relatively recent development. The latest British Council report (2024, p.6) classifies Brazil as a “growth limitations, high macro risk” country due to macroeconomic and demographic obstacles that constrain international student mobility. In contrast, internationalisation is more established and integrated within the HE system in Sweden.

Several contextual factors may help explain these differing stages of internationalisation. Sweden is generally recognised as a highly proficient English-speaking country, whereas in Brazil, only a limited proportion of the population demonstrates English proficiency (EF EPI, 2024). In addition, the Brazilian HE system is more diverse and geographically dispersed, covering a much larger territory than Sweden. Furthermore, while Swedish HE has been shaped by broader European initiatives such as the Bologna Process, Brazil is not part of this framework. These contextual differences may also contribute to the varying extent and development of EMI in the two countries.

Participants

The initial plan was to control for disciplinary variation by including only science, technology, engineering, and mathematics (STEM) teachers. However, due to lower participation rates in Brazil, I decided to include teachers from all disciplines in that context. In Sweden, 1,402 participants answered the survey. All participants came from STEM disciplines, and the majority identified as male (895 participants, 63.84%). In this sample, 450 participants (32.10%) identified as female, 40 participants (2.85%) did not want to comment on their gender, and 17 participants (1.21%) identified as non-binary. The participants in Brazil formed a total of 114 EMI teachers from different disciplines, and 61 teachers (53.51%) identified as male, and 53 participants (46.49%) identified as female.

Additionally, participants completed a section about their background information, indicating information about their reported first languages (L1s). Half of the participants in Sweden (51.57%) had Swedish as an L1, while a little over one third of the participants (38.73%) had other L1s than Swedish and/or English. This might reflect an international environment, which is in line with the increasing number of foreign-born staff in Swedish HE. In the Brazilian cohort, by contrast, the vast majority (93.86%) of the participants had Portuguese as their L1.

The participants were predominantly highly experienced teachers. In Sweden, almost 60% had ten or more years of general university teaching experience, compared with 65.78% in Brazil. EMI teaching experience showed greater disparities: almost half of the participants (47.58%) had ten or more years of EMI teaching experience in Sweden, while this was true for only 18.42% of participants in Brazil. Moreover, almost one third of the participants in Brazil (30.70%) indicated having no experience in EMI teaching, which was only 2.85% in Sweden. This is consistent with the differing levels of EMI implementation in the two contexts.

Instrument

A digital survey was conducted with Microsoft Forms. The survey was part of a bigger project that investigated the relationship between different aspects influencing teaching approaches in EMI (Vander Borght et al., 2025). For the purpose of this study, I focus on questions concerned with EMI teachers' language support needs. The teachers' need was measured using two closed statements and two open-ended questions, yielding both quantitative and qualitative data.

Quantitative Data

The closed statements were rated on a five-point Likert-scale: strongly agree, agree, not sure/prefer not to say, disagree, and strongly disagree. The two statements address both their own and their colleagues' need for language support: (1) "based on my current English ability, I need English language support to improve my teaching"; and (2) "other EMI teachers at my higher education institution need English language support." Descriptive statistics are given in the analysis.

Qualitative Data

Each of the quantitative statements was followed by the open-ended question: "Would you like to say anything else about your last answer?"

The answers to these two open-ended questions were thematically analysed and form the focal point of this paper. Out of 1,402 participants in Sweden, 502 participants (35.81%) answered the open-ended question on their own support needs, while 326 participants (23.25%) answered the question on their colleagues' needs. In Brazil, 114 EMI teachers answered the survey, of which 45 participants (39.47%) answered the question about their own need for support and 20 participants (17.54%) engaged with the question about their colleagues' need.

The linguistic backgrounds of the participants who engaged with the open-ended questions provide relevant context for understanding how positions are constructed, assigned, and negotiated in EMI settings. The distribution of L1s among participants who responded to the open-ended questions largely reflects that of the overall participant group. However, there are some minor differences: L1 English speakers are slightly overrepresented, whereas fewer participants with L1s other than English responded to the open-ended questions.

The study was fully compliant with Swedish law concerning human-participant research, and all participants gave their informed consent to participate. Moreover, the data were anonymised. For the purposes of data analysis and reporting, each teacher was assigned an individual code (e.g., Sw020 and Br015). The excerpts in the Findings and Discussion reproduce the participants' original wording and spelling, with emphasis added in the analytical process in bold.

Qualitative Data Analysis

The qualitative data were analysed in several phases. First, an initial coding was conducted on approximately 30% of the responses to the two open-ended questions. In this phase, I identified and analysed patterns within the data and developed an inductive codebook (Braun & Clarke, 2006), consisting of codes and definitions to guide the subsequent coding process. Throughout the coding phase, the six steps of thematic analysis by Braun and Clarke (2006) were generally followed. A reliability check was performed, during which the coding scheme was discussed with another researcher trained in qualitative research methods. Any disagreements were resolved through discussion, and the coding scheme was refined accordingly. Thereafter, the remaining data was analysed using the codebook. Table 2 shows the five major themes that reflect questions about teachers' positions towards language support.

Table 2. Five Major Themes

Theme	Definition
Who needs (no) support?	The teacher mentions personal characteristics that indicate whether (or not) support is needed, such as linguistic background, experience, and disciplinary background.
Why does the teacher need (no) support?	The teacher mentions reasons for (not) needing support, such as English as lingua franca.
What kind of support is needed?	The teacher mentions what kind of support is needed, such as support with developing vocabulary, grammar, or disciplinary literacy.
Where is (no) support needed?	The teacher mentions places where (no) support is needed, such as division, department, or university.
When does the teacher need (no) support?	The teacher mentions occasions when (no) support is needed, such as discussions with students or explaining content.

The RM framework was subsequently used to interpret and compare themes across the two contexts within its dimensions of EMI practice, consistent with the framework's aim to account for how EMI is structured and experienced differently across institutions (Dafouz & Smit, 2023). Using RM, I identified both shared patterns and context-specific differences. The dimensions most featured by participants are RO, AD, A, and ING, which overlap. I also slightly adapted the A dimension to fit the focus of the study. In Dafouz and Smit's (2016, 2020, 2023) framework, *agents* refer to the individuals or groups who influence the ways English is used within HE. Here, I instead focus on how participants position different actors in need of language support, that is, whom EMI teachers identify as requiring such support.

Findings and Discussion

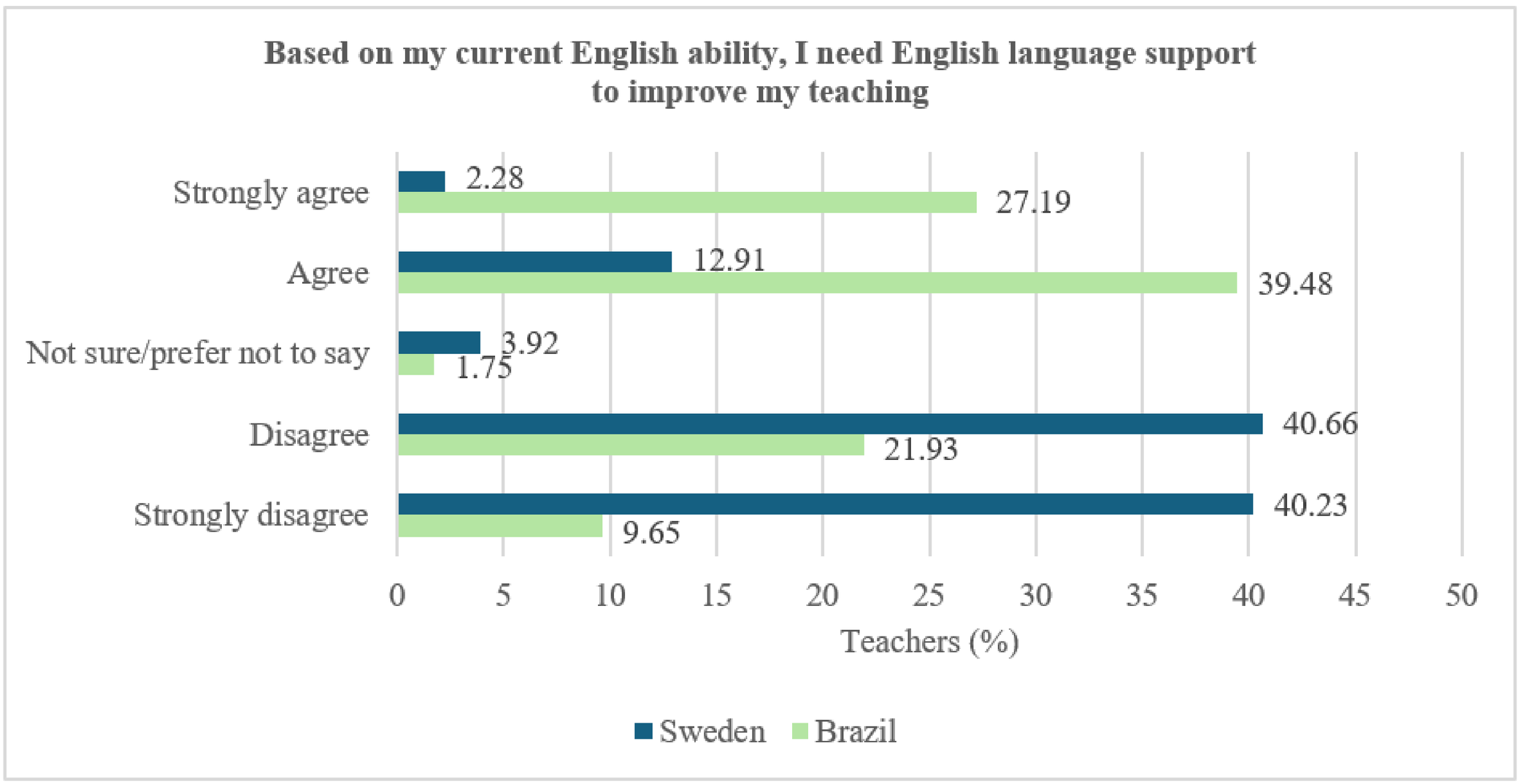
This study examines EMI teachers' perspectives on language support in Sweden and Brazil, comparing how they view support for themselves and for their colleagues. The analysis treats these two opinions separately: first, teachers' self-perceptions, drawing on quantitative results

and contextualised qualitative insights interpreted through the RM framework; second, teachers' perceptions of colleagues' need for support, using the same analytical structure. Finally, the two perspectives are compared.

Attitudes Towards Own Support

To provide an overview of EMI teachers' general perspectives on their language support needs, responses to the Likert-scale statements are shown in Figure 1. The vast majority of the teachers in Sweden (81%) reported not needing language support, while only 15% agreed (either agreed or strongly agreed) that they do. In contrast, in Brazil, more than half of the participants (61%) agreed to needing support.

Figure 1. Comparison of Perceived Teachers' Own Needs



To interpret and compare these differences, the teachers' statements were further analysed following the dimensions of the RM framework, starting with the *Roles of Englishes (RO),* followed by *Academic Disciplines (AD), Agents (A),* and *Internationalisation and Glocalisation (ING).*

Focus on the Institutional Role of English (RO)

The teachers' statements show that English has multiple communicative functions. In both contexts, English plays an important role and teachers mostly referred to the institutional role of the language when explaining their own need for language support. The teachers refer to English as the *lingua franca* (ELF) for their academic context. For instance, the Sweden-based

teacher in Excerpt 1 foregrounded the teaching and research role of English, mentioning the use of the language for teaching and learning a discipline. The Brazil-based teacher in Excerpt 2 similarly refers to the use of English specifically in his discipline.

(1) Since English seems to be the **language of science** at the moment, it feels like my native language when I teach anyway. At work we speak English, and all the scientific material I read/write is in English. (Sw449)

(2) I use many texts and articles that are written in English **in the area of geotechnology**. (Br002)

Another, less recurrent, role is the communicational role of English. Some teachers (especially in Brazil) indicated specific language skills they needed help with, such as vocabulary, grammar, and speaking. Teachers in Sweden also referred to codes they used. For instance, the teacher in Excerpt 3 mentioned using “Swinglish” (a combination of English and Swedish), using language as “a flexible form of multilingual communication” (Dafouz & Smit, 2020, p. 60) and indicating the focus on language as a process rather than a product. According to this teacher, it works within his discipline (Engineering).

(3) I’ve been lecturing 20y on English, or maybe more correct **Swinglish**, not perfect, but it seems to work fairly well. (Sw328)

Although this use of multiple languages or different codes was not reported by any of the teachers in Brazil, this does not imply that other teachers do not engage in translanguaging or code-switching. Considering the concerns present in scholarship (Molino, 2023; Richards & Pun, 2023), the findings suggest that providing targeted language support can help teachers remain critically aware of the potential pitfalls of translanguaging and apply it judiciously.

English as an Integral Part of Discipline (AD)

In a similar vein to the roles of English, the teachers foregrounded ELF for their academic discipline. *AD* includes two concepts according to the RM framework: academic culture and academic literacies. The teachers in both contexts mostly focused on the literacy’s aspect. They specifically named their discipline to strengthen the ELF claim, which could point to their discipline’s culture. The teachers mentioning the prominent role of English for their discipline were all from STEM disciplines, like the EMI teachers in Excerpt 2 and Excerpt 4.

(4) I feel fully confident and relaxed when teaching or presenting research in English, but I am less fluent in colloquial English. **My discipline** (Biology and Molecular Biology) **depends on English,** and does not have a complete terminology in Swedish. (Sw351)

The Biology teacher in Excerpt 4 also pointed to the differences among forms of English, reflecting the varied roles English plays (RO). The teacher contrasted the institutional and societal function of the language. This aligns with previous research showing that teachers feel confident using English in their discipline but struggle with general vocabulary (Dimova & Kling, 2018).

Referring to the incomplete terminology in Swedish, the teacher highlighted the dominant role of English within Biology, reflecting the complex relationship between language, disciplinary participation, and identity (Gronchi & Hopkyns, 2025). While ELF enables participation in international academic communities, the perceived lack of equivalent terminology in Swedish also points to tensions between internationalisation and the maintenance of the national language in HE.

While many teachers considered the prominence of ELF in their discipline to explain why language support was unnecessary, a small number of participants diverged from this view. In both contexts, some highlighted a need for support with subject-specific terminology, like in Excerpt 5.

(5) My English has improved, but it's still a bit **clunky and imprecise** when it comes to **technical terms**. (Sw039)

Seeing that teachers do not know or feel uncertain about the academic literacy of their discipline can be concerning, as these teachers are the experts guiding their students' academic literacy development (e.g., Malmström & Pecorari, 2021). Although only a few teachers in this study highlighted this challenge, it is noteworthy because it concerns a core aspect of teachers' disciplinary expertise and may indicate that language support remains relevant even in high-proficiency settings. Moreover, the lack of attention to academic culture in the teachers' comments may indicate that teachers do not emphasise it in their courses, even though it is essential for building disciplinary knowledge and fostering integration into academic communities.

Who Needs Support? (A)

The third dimension in the RM framework I explored are the *Agents* who need language support. The agents highlighted by the teachers occupy different roles and according to their role, the type of language support needs adjusting. Teachers in Sweden identified various agents that need support that are similar in the Brazilian context, by explaining why *they themselves* (do not) need support.

One of those agents is the L2 speaker of English, as Br022 indicated in Excerpt 6. This teacher believed he needed language support just because he did not have English as his L1.

(6) **English isn't native language**. Therefore, I need more knowledge and practice every time. (Br022)

L1 speakers also expressed a corresponding idea, but from the opposite sociolinguistic position. Generally, they indicated not needing help because English is their L1. These notions of native speakerism are also found in previous research (Molino et al., 2022; Yuan, 2020).

There were a few exceptions to this native speakerism ideology in the teachers' comments. The teacher in Excerpt 7, an L1 English speaker, did not perceive a need for help with the English sense of vocabulary and grammar. Instead, he indicated a need for support in adapting

the language to the teaching context, highlighting the importance of pedagogical training (cf. Vander Borght et al., 2025).

(7) As a native English speaker, I don't want help with my English per se - but advice on **communicating with non-native speakers**, and **helping students** who are weaker at English, might be useful. (Sw272)

Another agent mentioned by the teachers in both contexts was the students. For example, the teacher in Excerpt 8 indicated that students were the ones needing support.

(8) That type of training is probably **more needed for students.** (Br021)

The agency expressed by this teacher contrasts with Sw272, who sought to adapt to and support the students' language levels rather than repositioning the need for support onto the students.

Lastly, in both contexts, but mostly in Sweden, EMI teachers referred to their experience when denying their need for language support. The experience they referred to was professional, pedagogical, or personal. For example, the teacher in Excerpt 9 highlighted all three forms.

(9) The **training** I got by teaching, doing research and living in the UK **for 12 years** suffices for my current teaching needs. (Sw364)

In Brazil, only one teacher drew on his professional experience to argue that he did not need support, likely reflecting the smaller number of teachers with EMI experience in that cohort.

However, not all experience leads to effective EMI teaching, as observed by Sun (2023). Thus, although these perceptions provide valuable insights, they should be critically examined to determine whether they accurately reflect effective teaching practices.

Different Stages of Internationalisation (ING)

The final dimension explored within the RM framework is *ING*, focusing on the transnational nature of HE. Teachers in Brazil described the internationalisation aspects as something for future use, while many teachers in Sweden indicated having experience of teaching outside of Sweden and being used to an international environment. This reflects the different stages of EMI implementation in the two contexts.

The RM framework accentuates the importance of local and national drivers, yet only limited evidence of glocalisation emerged in teachers' comments. One teacher in Brazil highlighted the important role Portuguese plays in his lectures, as seen in Excerpt 10, indicating the less prominent role of English.

(10) Our classes emphasize the use of the **mother language**, with rare support for the another one. (Br044)

In Sweden, however, the national language did not appear as a prominent concern in the teachers' comments (see also Excerpt 4). This might reflect the institution's transnational orientation,

a more internationalised student body and a diminished emphasis on local considerations, as suggested by the teacher in Excerpt 10. Still, the earlier mention of code-switching (Excerpt 3) shows that the local language is used. Interestingly, while most comments highlighted the predominance of English in their discipline, two teachers expressed concerns with prioritising English over the L1 in HE. The teacher in Excerpt 11 voiced this critical standpoint and preferred teaching in the L1.

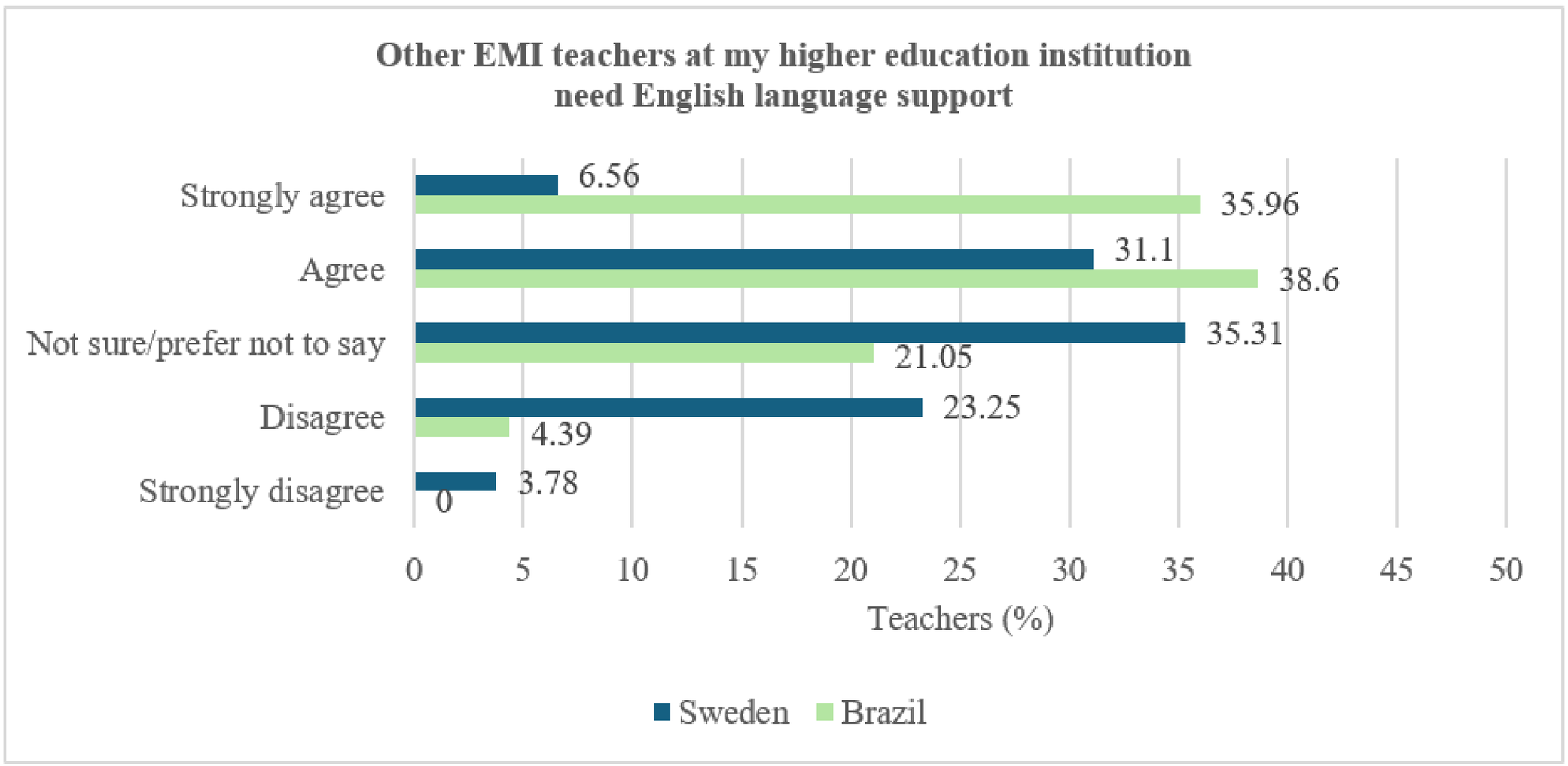
(11) It´s better to teach students in their **mother language**. It is too much focus on English in academia. (Sw501)

The teachers in both contexts mostly reported similar dimensions and reasonings behind (not) needing language support themselves, even though their perceived needs differed. To understand how these views extend beyond the self, I explore how teachers position their colleagues in relation to language support in the following section.

Attitudes Towards Colleagues' Needs

Asking teachers whether their colleagues need language support yielded paradoxical insights. Figure 2 shows that teachers perceived a greater need for support among colleagues than for themselves. The vast majority in Brazil (75%) agreed or strongly agreed with the statement that their colleagues need language support. In Sweden, the perceived need for support among colleagues (38%) exceeded teachers' self-reported need (15%). This discrepancy is paradoxical, especially in Sweden, as both perceptions cannot logically be true. Notably, the proportion selecting "not sure/prefer not to say" was higher for colleagues' needs than for themselves. I interpret this as uncertainty rather than reluctance, suggesting that EMI teachers may lack awareness of colleagues' classroom practices and teaching quality.

Figure 2. Comparison of Perceived Colleagues' Needs.



Again, the RM framework was used to explore the other-perceptions, following the same order as for the self-perceptions.

Various Roles of Englishes (RO)

Compared to the statements relating to their own need, the teachers indicated more varied roles of English for their colleagues' need, as I could identify all four factor types in different teachers' statements: institutional, communicational, pedagogical and societal. This resulted in some differences between the two contexts.

Similarly to the statements about their own need for support, teachers in both contexts highlighted mostly the institutional role of English for their colleagues (not) needing support. The teacher in Excerpt 12 indicated the importance of English for job opportunities within research, highlighting the specific research side of English, which is usually discipline-specific.

(12) In general, English is necessary for a **research career,** so it is seldom an issue for teaching. (Sw497)

Interestingly, the teacher in Excerpt 13 (Sw517) stressed the international nature of universities and therefore described English as a necessary job requirement.

(13) Universities are **international workplaces**. . . So any teacher/researcher who does not have sufficient English skills **should reconsider his choice of workplace.** (Sw517)

This aligns with the teacher in Excerpt 12 (Sw497) recognising the importance of English for researchers, but the teachers expressed contrasting views regarding the relationship between English proficiency and professional practice. Sw497 viewed the ELF context as evidence that language support is unnecessary, implying that English competence can be assumed from research participation. Conversely, Sw517 argued that English should be a given for teachers and researchers, positioning language proficiency as a precondition for professional competence.

Moreover, the statement of Sw517 also connects with the *ING* dimension, as it portrays universities as international institutions (at least in the context(s) this teacher is familiar with). This perspective is also reflected in statements referring to the societal type of English in the workplace. For Sw517, English is an integral part of the professional environment, whereas in Brazil (Excerpt 14), it is not embedded in the same way.

(14) English has **not been a priority** in Brazil. (Br013)

The embeddedness of specific languages can also be seen in different academic disciplines.

Discipline Equals English (AD)

Looking at the *AD* dimension, no responses from the Brazilian context reflected this dimension. Teachers in Sweden, however, generally indicated that their close colleagues do not need

support, although they noted this might differ across departments or disciplines. For instance, the teacher in Excerpt 15 indicated that most colleagues in natural sciences do not need support, but other disciplines might.

(15) Most teachers in my department have a level of English more than sufficient for teaching purposes. However, I believe this may not always be the case for some teachers in **disciplines related to e.g. social sciences and humanities**. (Sw536)

A similar point emerged in Excerpt 4, where the teacher emphasised the ELF role in his discipline. Together, this suggests a perceived divide between disciplines, with some seen as more English-centred than others.

No teacher indicated that their colleagues needed help with academic literacy. This assumption seems reasonable, as teachers do not attend their colleagues' classes and, as Sw517 and Sw497 noted, they assume that researchers in their field possess sufficient academic literacy. In a way, the lack of focus on academic literacy here might also hint at a stronger emphasis on academic culture among colleagues.

Agents and Internationalisation Intertwined (A; ING)

Similar to the statements for own need for support, different levels of experience were attached to the need for support for colleagues. In Sweden, junior researchers were identified as agents for needing language support. Nevertheless, also colleagues from age 50 or older were mentioned by the teachers, as some of them (according to the teachers) showed reluctance to adapt their teaching.

Another category within the agents emerges when the teachers justified the language support needs of their colleagues. In many cases, this aligned with the *ING* dimension as well. On the one hand, teachers in Brazil indicated that English is not a proficient language in Brazil and therefore their colleagues generally need language support (see Excerpt 16).

(16) In Brazil most people **do not speak English**. […] (Br051)

On the other hand, teachers in Sweden indicated the international nature of their universities, as Sw517 mentioned earlier. However, the internationalisation of HE in Sweden also brings challenges. For example, in Excerpt 16, teachers pointed out that colleagues from certain cultural backgrounds, particularly Asian (e.g., "Kina," the Swedish term for China) and French, may need language support, suggesting possible instances of linguistic prejudice. Such perceptions possibly indicate tensions in multilingual and multicultural EMI settings, which could create challenges for international students and colleagues.

(17) In general, **European colleagues** have decent English, while colleagues from Japan, Kina etc. have greater struggles. (Sw560)

Yet, a handful of teachers also questioned whether Swedes know English well enough, as shown in Excerpt 17, which highlights the nuance of perceptions.

(18) In general **Swedes overestimate** their abilities in speaking English. (Sw559)

Swedish teachers highlighted cultural and linguistic diversity as a factor, reflecting their highly internationalized environment, whereas this was absent in Brazil – though it may become relevant as internationalisation advances. These findings point to the necessity of inclusive and context-sensitive support systems.

To add on the different stages of internationalisation that emerged in the statements for own need for support, the teacher in Excerpt 18 accounted for it because internationalisation is the policy at his institution. This Engineering teacher was highly experienced in general university teaching but had no experience in EMI teaching. His statement implies, again, that EMI is not the reality yet.

(19) With the internationalisation **policy** in my institution, the teachers must be well trained in English language. (Br037)

This excerpt illustrates the intersection of different dimensions. Internationalisation objectives (ING) are translated into institutional language requirements through policy (M), which place expectations on teachers (A) and are operationalised through language training and professional development practices (PP). This illustrates how broader internationalisation agendas can shape everyday educational practices through institutional language management.

While no glocalisation instances were found for the other-perceptions, internationalisation incentives diverged significantly in the two contexts. Swedish teachers often cited their institution's global orientation as a reason for not requiring language support, while simultaneously noting challenges such as understanding diverse accents. In contrast, Brazilian teachers viewed internationalisation primarily as a policy goal rather than an established reality. These contrasting perspectives illustrate how global and local forces interact to shape EMI practices and language support needs, and the importance of analysing data in their specific context.

Self- and Other-Perceptions Compared

The high proportion of voluntary responses to the open-ended questions suggests that teachers perceive language support as significant and relevant. Several factors may explain this engagement. First, some responses conveyed frustration, possibly hinting at perceived tensions within institutional practices. Second, the teachers hint at disparities between the expectations associated with success in HE and the resources available to them. These reactions may underscore the complexity of attitudes towards language support and the interplay between institutional policies and individual perceptions. Moreover, the observed language ideologies may be attributed to a combination of societal and individual forces. Overall, this underlines the need for an easily accessible and inclusive language support system, so all teachers can find the support they need.

Interestingly, while research on other-perceptions within EMI research is scarce, previous studies have found similar paradoxical patterns between self and other-perceptions (e.g., Bolton & Kuteeva, 2012). Although addressing a different topic, this resembles cognitive biases such as illusory superiority, where individuals perceive themselves more positively than others (e.g., Tappin & McKay, 2017).

Furthermore, teachers based their perceptions of colleagues on general conversations rather than classroom observations, explaining their uncertainty about colleagues' needs. According to the teachers, they rarely observe each other, so these perceptions should not be taken at face value but indicate possible tensions in the two contexts. Overall, the findings show that perceptions of support are shaped by both personal and collective considerations.

Conclusion

This study examines EMI teachers' perceptions of language support needs, revealing diverse elements and stages of EMI across various contexts. The two contexts examined — Sweden and Brazil — differ markedly in their linguistic and institutional landscapes. The teachers in this study bring Sweden forward as a highly internationalised environment with widespread EMI and generally high English proficiency, whereas Brazil is portrayed as less internationalised, with lower overall proficiency and EMI still in its early stages of development.

While it is beyond the scope of this paper to discuss *all* different aspects mentioned by the teachers, and more data were collected from Sweden than Brazil, the findings underscore the complexity and contextual nature of EMI experiences. This study indicates a need to move beyond conventional language support, which emphasizes grammar and vocabulary, towards approaches that equip teachers to deliver disciplinary content effectively in an EMI context. Such adapted forms of support should be positioned as resources that facilitate both teachers' instruction and students' learning. Furthermore, there remains a need to expand our understanding of language ideologies, linguicism, and tensions within EMI contexts, as these can form issues on different levels. Consequently, future research could further inform professional development programs on navigating these tensions and helping institutions and policy developers recognise and address them. In addition, creating more opportunities for peer observation may be beneficial for sharing effective EMI practices and fostering quality-enhancement-driven communities of practice. Several teachers in this study reported having limited insight into their colleagues' teaching practices, suggesting a need for greater collegial exchange and mutual learning around EMI. Ultimately, this study underscores the need for the development of more tailored, inclusive, and effective language support for all EMI teachers, including those who may otherwise resist seeking assistance.

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8. Navigating EMI Lecturers' Teaching Anxiety: Insights and Implications for Support

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Abstract: Lecturers in international EMI classrooms, the majority of whom are L2 speakers of English, may face numerous challenges when preparing for classes, using English, and delivering course content (Graham, 2022). These challenges may trigger teaching anxiety, which may negatively impact teachers' attitudes and performance (Bernstein, 1983). The aim of this qualitative case study is to explore EMI lecturers' emotions associated with preparing for and teaching classes in English, as well as to identify potential causes of teaching anxiety, and the coping mechanisms they use. Twenty EMI lecturers at a public university participated in semi-structured interviews that elicited: a) their emotions concerning class preparation and teaching in their L1 and L2, b) factors that cause teaching anxiety, c) the effects of teaching anxiety on teaching, and d) lecturers' support needs. The findings suggest that some lecturers experience insecurity and frustration while preparing for EMI, doubt their teaching abilities, and feel nervous in the classroom. Lecturers reported a range of anxiety-provoking situations, from inadequate preparation to the challenges of accommodating a diverse student population. They also described a variety of strategies for coping with teaching anxiety in EMI contexts. Finally, participants highlighted the importance of continuous and timely language support in helping lecturers prepare for the challenges associated with teaching in EMI classrooms.

Keywords: EMI, emotions, interviews, university lecturers, teaching anxiety.

Introduction

English-medium instruction (EMI) refers to "the use of the English language to teach academic subjects (other than English itself) in countries or jurisdictions where the first language of the majority of the population is not English" (Macaro et al., 2018, p. 1). This global educational phenomenon has rapidly expanded, with the number of English-taught programmes offered in non-Anglophone countries tripling since 2014 to more than 40,000, most of them (63%) at master's level (Studyportals & British Council, 2024). Croatia mirrors this broader trend; its EMI landscape has changed dramatically in the last three decades, more specifically, in 2002 there were no study programs entirely conducted in English (Ammon & McConnell, 2002), whereas in 2025 there were 123 study programs in English listed on the "Study in Croatia" webpage (Agency for Mobility and Study Programmes, 2026). This growth in the number of programs has been supported by university strategies and the national-level policy document for higher education; however, it has not always been accompanied by adequate English language support programs and an appropriate exchange of information within and among institutions (Drljača Margić, 2025).

EMI Lecturers and Teaching Anxiety

Since most of the EMI lecturers are L2 speakers of English, they may face linguistic, pedagogical, and psychological challenges in the EMI classroom (Wang, Yuan & De Costa, 2025) as teaching in EMI is not a mere translation of an L1 class into English (Drljača Margić & Vodopija-Krstanović, 2023), or the direct transfer of existing teaching practices (Wang et al.,

2025). Compared with teaching classes in their mother tongue, EMI lecturers face additional demands (Alhassan, 2021), including increased preparation time, greater linguistic complexity when communicating ideas and concepts, higher levels of cognitive fatigue, and potential linguistic insecurity stemming from perceived limitations in fluency (Aguilar, 2017).

This is particularly relevant in Croatia, where EMI lecturers are predominantly L2 speakers of English and only a small part of the Croatian population speaks English as a first language (Drljača Margić, 2025). Therefore, many Croatian lecturers face additional linguistic and teaching challenges in comparison to the classes they teach in their mother tongue (Drljača Margić & Vodopija-Krstanović, 2023). Although Croatian EMI lecturers generally hold positive attitudes towards EMI, concerns remain that some lecturers do not possess the level of proficiency to meet the demands of EMI study programs. Furthermore, some lecturers report feeling insecure and concerned about their performance (Drljača Margić & Vodopija-Krstanović, 2022), which may indicate the presence of teaching anxiety, defined as an affective state which can have a negative influence on the process of learning and teaching (Aydin, 2021). Some of the common triggers of teaching anxiety include public speaking, class preparation, and students' negative comments. EMI lecturers' teaching anxiety might be amplified by the need for formal and informal communication in English, the demands of teaching disciplinary content in English (Graham, 2022), and the challenges of intercultural teaching (Dimitrov & Haque, 2016; McAllister-Wylie & Vodopija-Krstanović, 2023). This type of anxiety is common across disciplines (Gardner & Leak, 1994) and may lead to a range of issues in teaching (Bernstein, 1983), including difficulty answering questions, hostile interactions with students, and avoidance behaviors such as an overuse of videos, guest lecturers, or student presentations.

Although EMI often triggers negative emotions connected to teaching in a non-dominant language (Ellison, 2021), research on lecturers' emotions has been surprisingly scarce (Nazari & De Costa, 2024). Consequently, there is a need for a greater focus on the emotional environment of EMI in higher education (Hillman et al., 2023), particularly on the affective experiences of individuals, and how these interact within the local context (Miller, 2023). Namely, teacher emotions are important because they might affect teachers' instructional behaviours, students' behaviors, as well as teachers' decisions on whether to stay in the same profession (Frenzel, 2014; Gkonou, 2020). The first study to address EMI teaching anxiety found that the majority of pre-service EMI teachers in Taiwan experience EMI teaching anxiety, and that English speaking anxiety is a strong predictor of EMI planning and execution anxiety (Graham, 2022).

The remainder of this chapter is organised as follows. The next section outlines the theoretical grounding and aims of the study, together with the research questions guiding the investigation. This is followed by a description of the study's context, participants, and research methods. The findings and discussion section then addresses each research question in turn, examining lecturers' emotions in relation to teaching in their L1 and in English, the factors underlying EMI teaching anxiety, its effects on classroom practice, and the forms of support lecturers identify as most useful. The paper closes with concluding remarks on the study's implications for EMI policy and practice, and directions for future research.

The study

The theoretical grounding for this study is based on the understanding that teaching anxiety could be an important factor in the development of attitudes and behaviors that might have undesirable effects on the ability to teach successfully as well as on teachers' physical and mental health (Bernstein, 1983). Within the EMI environment, this anxiety may be intensified for L2 English-speaking lecturers, given the added emotional demands of formal and informal communication in an L2 (Hillman et al., 2023; Graham, 2022).

Aim and research questions

This study aims to gain insight into EMI lecturers' emotions and teaching anxiety, including their causes and impact on teaching. It also explores the support lecturers feel they need. Specifically, the study was guided by the following research questions:

RQ1: What are the emotions of EMI lecturers about preparing for and teaching in L1 and English?

RQ2: What are the factors that potentially cause EMI teaching anxiety?

RQ3: How do EMI lecturers perceive the impact of teaching anxiety on their teaching?

RQ4: What kind of support would EMI lecturers benefit from?

Context and participants

The research was conducted at four Faculties of a mid-sized Croatian university. Purposeful sampling was used, and participants were selected because they could potentially answer the research questions (Miles & Huberman, 1994). The sample comprised 20 EMI lecturers, all L1 speakers of Croatian and L2 speakers of English (Table 1). The interviewed lecturers hold different academic ranks, from teaching assistants to full professors, and teach in the social sciences, biomedical sciences, natural sciences, technical sciences and the humanities. Their experience in teaching in L1 (Croatian) varies from 7 to 26 years (16.4 on average), whereas in L2 (English) it ranges from 2 to 14 years (6.86 on average). They were assigned identification codes from T1 to T20.

Table 1. Lecturers' teaching experience and scientific area

Lecturer	Number of years of teaching in L1	Number of years of teaching in L2	Scientific area
1	10	7	humanities
2	20	2	biomedicine and health
3	33	6	biomedicine and health
4	20	2	biomedicine and health

5	18	10	biomedicine and health
6	10	2	biomedicine and health
7	16	7	biomedicine and health
8	20	5	social sciences
9	21	7	social sciences
10	15	2	biomedicine and health
11	26	9	natural sciences
12	23	14	social sciences
13	13	13	social sciences
14	24	13	social sciences
15	12	8	social sciences
16	11	3	social sciences
17	9	9	social sciences
18	7	7	social sciences
19	7	7	social sciences
20	13	4	social sciences

Research method

This qualitative case study draws on semi-structured interviews with twenty EMI lecturers. The interviews lasted approximately 40 minutes and were conducted in Croatian, the lecturers' L1, before being translated into English for the purposes of this study. The data were organized into topics guided by the research questions and analyzed through a process of coding and categorizing (Saldaña, 2021) carried out independently by both authors, who then compared their coding and discussed any discrepancies until agreement was reached (Creswell & Creswell, 2018).

Findings and Discussion

This section presents the findings together with their discussion, structured around the study's four research questions. It begins with lecturers' emotions when preparing for and teaching in their L1, before turning to their emotions when preparing for and teaching in English. It then examines the factors lecturers identify as sources of EMI teaching anxiety and how this anxiety shapes their classroom practice, discussing each finding in relation to prior research as it is presented, before concluding with the forms of support lecturers say would help them.

Preparing and teaching L1–medium classes

When reflecting on their preparation for and teaching in L1, some lecturers feel ashamed about how ill-equipped they initially were to teach. This is consistent with the fact that university lecturers are typically appointed on the basis of disciplinary expertise rather than any formal training in pedagogy (Bowles & Murphy, 2020). Lacking any theoretical or practical grounding in pedagogy, they instead drew on their own experience as students, modelling the behaviours of their former teachers. As stated by T14:

I didn't know what lesson preparation was, what a learning outcome was. I didn't know anything about teaching. And all of a sudden, you were preparing classes and it was expected that you prepare everything. My beginning was modest if not shameful from today's perspective. (T14)

T5 similarly attributed this reliance on modelling to the absence of any formal training in pedagogy:

I never received training in pedagogy, methodology, didactics, we didn't have that part of theoretical, systematic education, but my teaching is modeled after how my teachers taught me, so that's how I teach. (T5)

For other lecturers, this sense of unpreparedness extended beyond pedagogical knowledge to communication skills in the classroom itself. T17, for instance, recalled feeling ashamed of how poorly they communicated with students when they first began teaching:

I am an introvert and I remember when I entered the classroom in 2011. I am ashamed of how bad I was at communication. I would barely look at my students. (T17)

In contrast to those who recalled early struggles, many lecturers describe a general sense of ease and confidence in their L1 teaching, reporting that any anxiety they do experience is tied to specific novelties in the classroom, such as an unfamiliar group of students or an unfamiliar topic, rather than to teaching in L1 itself. As T2 and T7 explained:

When I teach in L1 I would say I am not nervous. Maybe when I meet a new group for the first time or when I teach a new topic, but generally I can do it easily. (T2)

I love teaching and I love working with many people. Obviously, when I meet a new group, especially when there is a big group of students I feel a bit of adrenaline but I would call this a positive stress. (T7)

Taken together, these accounts suggest that lecturers' emotions about teaching in L1 are shaped less by the language of instruction itself than by their level of experience and sense of professional competence. Where some lecturers, like T14, T5, and T17, associate the early stages of their careers with feelings of inadequacy stemming from a lack of formal pedagogical training, others, like T2, T7, and T1, describe teaching in L1 as a source of confidence, comfort, and even reward, with any anxiety confined to specific, situational triggers rather than to teaching

itself. This distinction between anxiety rooted in a lack of preparedness and anxiety tied to isolated classroom novelties becomes an important point of comparison when we turn to lecturers' emotions about teaching in English.

Preparing and teaching L2-medium classes

In terms of preparation for EMI, some lecturers express insecurity and frustration. Their insecurity appears to stem from a lack of preparation, including no opportunities to address their linguistic challenges and no clear benchmark for entering the EMI classroom, as institutions have yet to agree on common standards for certifying lecturers' readiness to teach in English (Sun, 2023). Alhassan (2021) suggests that certifying EMI study programmes could motivate lecturers to pursue training. Besides, certification could also give lecturers a sense of security, confirming that they genuinely belong in the EMI classroom. This is in line with Macaro et al. (2021), who report that some of their respondents likewise believe certification should be introduced. As T12 recalled:

What was the worst for me was that we had no preparation for it. I was really burdened by grammar and that I hadn't had an opportunity to repeat it or deal with it. (T12)

T1 similarly pointed to the complete absence of any proficiency check prior to teaching:

Nobody checked our competence in English. If the teacher said that he/she could speak the language, obviously they could teach in English, as well. I attended the first workshop after I already had some experience in teaching in English. (T1)

Selecting appropriate reading material for their students appears to be the first hurdle lecturers face when preparing for EMI, particularly since EMI instructors often rely heavily on existing textbooks rather than adapting materials to their students' specific needs (Alhassan, 2021). This is compounded by the fact that lecturers moving to EMI typically cannot simply reuse the materials they had already developed for their L1 classes, even though materials in English may, in principle, be more readily available than those in other languages (Kling et al., 2022). As T3 explained:

In the first two years we changed the reading material twice. It is all anatomy but there are different professional-methodological approaches to anatomy and that was a big problem. (T3)

For T11, the challenge of finding suitable material was the very first concern that came to mind when preparing for EMI:

First I had to think about the reading list for my students. (T11)

The most frequent comment lecturers make about preparing for EMI, relative to their L1 classes, is that it is more time-consuming and cognitively demanding, echoing Drljača Margić and Vodopija-Krstanović's (2023) finding that EMI lecturers report needing extra time and effort for lesson planning, material development, and assessment, a pattern corroborated by prior

research (Lo, 2014) as well as findings that EMI lecturers generally experience their teaching as more tiring and time-consuming than L1 teaching (Kling et al., 2022).

Preparation for my first class was very intensive and very lengthy. (T1)

Much more preparation, incredibly more because I repeat what I will say a couple of times. (T2)

I prepare myself more – not only the task but also myself – how to explain, in what way. (T15)

When asked about their experience of teaching in EMI, some lecturers doubted their ability to teach in English and reported experiencing heightened levels of anxiety. This is consistent with the view that lecturers may enter EMI assuming that disciplinary expertise and everyday conversational English are sufficient for effective teaching, an assumption that does not always hold in practice, leaving lecturers to contend with the pressure of meeting language standards alongside content standards, which can in turn give rise to self-doubt (Drljača Margić & Vodopija-Krstanović, 2017). As T3 recalled:

I was really nervous at first. I would write in English and then I would try to reproduce that. (T3)

For T9, this anxiety was severe enough to affect their broader professional commitments:

I was extremely nervous and I felt incapable of speaking or delivering my classes. I dropped as many of my responsibilities as possible…I even considered quitting my job although I love teaching in L1. (T9)

A further lecturer described this anxiety as a persistent, unresolved condition rather than a passing phase:

I never feel safe in EMI. There is always that language barrier and a lack of vocabulary (T2).

These accounts of intensified preparation and heightened anxiety suggest that the transition to EMI is experienced by lecturers not merely as a linguistic adjustment, but as a broader challenge to their professional confidence, one that persists well beyond the early stages of the transition for at least some lecturers, as illustrated by T2's account. This lends support to the concern, raised earlier in this paper, that EMI teaching anxiety is not confined to novice lecturers but can affect those with considerable teaching experience.

Potential factors that cause EMI teaching anxiety

Lecturers identified several potential sources of EMI teaching anxiety: the manner in which they were appointed to teach in English, their prior experience with the language, the demands of communicating with native or more competent speakers, the challenges posed by international students, the pressures of classroom interaction, and difficulties with comprehension.

a)Appointment to EMI Teaching

One likely source of anxiety at the outset of lecturers' EMI careers was the manner in which they were assigned to teach in English. Their accounts suggest that this transition was experienced not as a choice but as an imposed duty, a pattern consistent with research showing that EMI policy is frequently implemented in a top-down manner, with limited consultation of the teaching staff expected to deliver it (Zheng & Choi, 2024). As T12 recalled:

Nobody asked us, younger teachers, anything. I think the older professors could choose whether they wanted to participate in EMI. (T12)

Another described being informed of the decision without any prior discussion:

My head of department charmingly told us that everybody who is a professor has to teach. "Let's make sure that our department delivers our classes in English." There was no choice or even asking… Do you want to…? Do it. Awful. (T9)

A third lecturer recounted an even more abrupt announcement:

I was told, literally, in the hallway: "You are starting to teach in English from the next semester." Who, how, why? (T11)

This absence of consultation or preparation echoes a broader pattern identified in the EMI literature, whereby institutions adopt EMI as a strategic or reputational decision without establishing the policy structures, certification procedures, or professional readiness mechanisms needed to support the staff who must implement it (Akıncıoğlu, 2025). It also mirrors findings from other national contexts, where instructors similarly report a sense of shame, uncertainty, and incompetence at the very outset of their EMI teaching, when the transition is imposed rather than chosen (Zheng & Choi, 2024).

b) Linguistic Competence

English language competence is widely regarded as a central source of difficulty for L2 English-speaking lecturers in EMI (Drljača Margić & Vodopija-Krstanović, 2017, 2025; Macaro et al., 2018). This concern has become increasingly salient as English has taken on the role of an academic lingua franca in higher education, since the linguistic competence of L2 English-speaking lecturers is critical to their capacity to teach effectively in this role (Drljača Margić & Vodopija-Krstanović, 2025). Even lecturers who are otherwise confident in their general English proficiency report that teaching demands a higher, more specialized register than they typically use. For some, this difficulty is compounded by the fact that English was not their first foreign language at school, leaving them without the depth of language-learning experience they draw on in other domains. For others, the issue is less one of competence than of attitude: English is accepted as a global lingua franca out of necessity rather than genuine enthusiasm.

I know I speak English well, but again, it's a higher level and a different aspect. And it's a little bit more professional. (T20)

However, for me, English itself is a language that I have to know, and it's not that I like knowing it. It is my first foreign language, but it's not close to my heart. I respect the language, but I don't like it passionately. (T1)

English was an elective course for me in high school, which made teaching in English much more demanding. (T5)

German was my first foreign language, and I was hoping we won't be teaching in English. (T11)

c) Classroom Communication: Monologue versus Dialogue

Lecturers distinguished between monologic and dialogic modes of classroom communication in terms of the anxiety associated with each. Monologic teaching, which could be rehearsed in advance, was generally experienced as a safety net. Interaction, by contrast, was perceived as considerably more unpredictable, representing a potential minefield. Some lecturers nevertheless found it rewarding, whereas others struggled to respond spontaneously. This pattern is consistent with the assumption, examined in recent research, that EMI lecturers with lower levels of English proficiency tend to favor a more teacher-centered, transmissive teaching style over a more interactive, student-centered one (Malmström et al., 2026), as indicated in the following excerpts:

I find the monologue easier. It sounds odd, I find the monologue easier but I love the dialogue more. (T2)

The uncertainty [when interacting] is greater, but the satisfaction is also greater when the interaction is nevertheless established in a satisfactory manner. (T4)

I either learn the lesson and then retell it or I cannot speak. (T9)

Difficulties with comprehending student questions further compounded this unease, a challenge also reported among instructors elsewhere, some of whom respond to unfamiliar accents by avoiding interactive communication altogether (Zheng & Choi, 2024):

Their questions are the biggest problem to me. This is English with a strong German accent and you cannot tell them anything, you have to focus really hard. I have to try real hard to understand them. Sometimes I ask them to slow down a bit. (T6)

The students were explaining something to me and I was wondering whether they were joking with me because I could not understand anything. I just nodded and then I would ask: "Would you like to comment on anything else?" (T9)

d) Native Speakers as Interlocutors

Lecturers consistently perceived native English speakers, whether students or colleagues, as more demanding interlocutors than L2 English speakers, and as a distinct source of communicative stress. This is consistent with research identifying the dominance of the native-speaker norm as one of the persistent challenges of EMI language policy, one that contradicts the lingua franca

function English is meant to serve in the multilingual EMI classroom (Ou et al., 2022). A closely related finding has been reported among Croatian EMI lecturers themselves: while students who share the lecturer's own struggles with English tend to adjust quickly, students who are native speakers or otherwise highly proficient are more likely to notice the lecturer's limitations in vocabulary and pronunciation (Drljača Margić & Vodopija-Krstanović, 2023, 2025).

This year I had a British student whom I did not understand a word. (T3)

…there are many from the UK and they are the most difficult to understand. (T9)

I was team-teaching with a renowned professor who was an American and spoke perfectly. Of course I used to think before I would utter a sentence. Now, when I know him better, I am more relaxed but at the beginning… (T12)

It is always a bit more stressful when you are with somebody who is really good or a native speaker than when you are on your own. (T20)

e) Changing Student Population

Beyond the shift in the language of instruction, EMI also entails a change in the composition of the student body. Lecturers reported that the challenge posed by students varied according to their linguistic background, and that international students brought an additional cultural dimension that further complicated the classroom audience. This mirrors findings from other national contexts, where the increasing diversity of the international student population has been shown to intensify the pedagogical demands placed on EMI lecturers (McAllister-Wylie & Vodopija-Krstanović, 2023), alongside the linguistic demands of the shift to English itself (Zheng & Choi, 2024).

The Spanish are difficult to understand, the Italians don't speak English well, the Germans speak perfectly. (T3)

Students who attend classes in English are more interactive, they tend to get involved a bit more and ask more questions… (T1)

I noticed on their faces that something was not right and I had to change the concept immediately. They are extremely demanding in comparison to our students. (T6)

f) Vocabulary Range and Accuracy

Finally, lecturers identified vocabulary range and accuracy as a further source of difficulty, noting a marked contrast with their ease of expression in their L1 and describing a persistent lack of confidence in their ability to narrate or explain fluently in English.

Using words precisely was a challenge, whether I pronounced the words correctly, whether the written material was comprehensible. (7M)

Telling a story which is related to a patient was problematic for me. Whether I would remember the name of the plant or a piece of furniture. (5M)

The impact of EMI teaching anxiety on teaching

Lecturers who experience insecurity in the EMI classroom in general, or EMI teaching anxiety in particular, may adapt their teaching practices in ways that differ markedly from their L1 teaching, drawing on a range of compensatory strategies to make the EMI classroom a more manageable environment. In the present study, such insecurity appeared to shape several aspects of lecturers' practice, including grading, feedback, the use of L1, the design of PowerPoint presentations, the checking of students' work prior to class, question-asking, and the acknowledgement of what students bring to the classroom.

Grading emerged as one area where insecurity translated directly into practice, with one lecturer explaining a reluctance to assign very low marks because of the difficulty of justifying that decision in English:

It is possible that I won't give a drastically low number of points, partly because it is difficult to explain why they got so little. (T1)

Feedback posed a related but distinct difficulty. Some lecturers avoid giving feedback altogether, since they are unable to adequately support or explain their assessment of a student's work in English (Drljača Margić & Vodopija-Krstanović, 2017). This difficulty was echoed by T3, who described being able to explain and praise student work convincingly only in Croatian:

I find the exams the most difficult. To explain why something is good and to praise that something is really good. I feel that I can do it well only in Croatian [gestures, tone, saying]. (T3)

Other lecturers drew on shared languages as a resource when their own English proved insufficient, a strategy consistent with research on EMI teachers' coping strategies more broadly, which identifies the use of L1 as one of the most common strategies teachers adopt to manage the demands of teaching through English (Pun & Thomas, 2020), and with the specific use of code-switching among EMI lecturers to facilitate vocabulary access and ensure meaningful classroom communication (Cicillini, 2023):

When we digress, I sometimes cannot find the right word so I ask for some help from the people who speak Croatian or other Slavic languages. (T2)

Others compensated through the written medium, expanding their slides to provide themselves with additional linguistic support during class, a strategy that echoes findings elsewhere that EMI lecturers often supplement spoken instruction with vocabulary lists and written material precisely to offset the added demands of teaching in English, as explained by T5.

I always put more notes on my slides in English. I add some words that I might forget during my class. (T5)

Some lecturers shifted part of the linguistic burden onto students themselves, requiring greater preparation in advance of class as a way of reducing unpredictability in the moment:

Students who present in English send their presentations in advance, which is not something I demand from students in Croatian classes. (T8)

Others managed uncertainty as it arose in class, using classroom talk itself as a stalling strategy:

When I was insecure about something, I would start a discussion, to "buy" myself some time. (T15)

Finally, one lecturer described explicitly distributing linguistic responsibility between themselves and their students, treating the classroom as a space of mutual, rather than one-directional, language support:

I would tell my students their English is better and that they would jump in case I needed help and vice versa. (T12)

Support for lecturers

When asked what kind of support would alleviate their teaching anxiety and make them more comfortable teaching in EMI, lecturers consistently identified two forms of support: peer support and continuous language support. Both preferences point toward the same underlying logic: support that is sustained over time but modest in the demands it places on lecturers, rather than a single, intensive intervention. This is consistent with the view that EMI teacher development unfolds through several complementary routes, formal training, collegial collaboration, and self-initiated practice, rather than through formal training alone (Wang et al., 2025), and reflects the fact that formal EMI training provision remains inconsistent even in well-resourced European contexts, where a substantial share of institutions offer no dedicated EMI training at all, and where existing provision tends to prioritise general language proficiency over broader teaching competencies (O'Dowd, 2018). Lecturers' preference for peer support is consistent with Alhassan's (2021) proposal that lecturers form groups to exchange ideas and practices. One lecturer described having proposed exactly this kind of arrangement within their own department:

I proposed at my department that everybody prepares a 10-minute lecture and then the rest of us listen and ask questions. (T9)

Another lecturer (T3) envisioned a similarly informal version of peer exchange, framed explicitly around reducing pressure:

Even giving short lectures to other colleagues at the department in a more relaxed environment.

With respect to language-related training, lecturers placed particular weight on spoken language skills, a priority consistent with Drljača Margić and Vodopija-Krstanović's (2018) account of language development for EMI as an ongoing process. One respondent proposed that such training be built directly around the communicative situations lecturers actually face in class:

…conversation courses where we would be exposed to situations that I face in class, where I have to provide answers on the spot and communicate with the person sitting next to me. (T1)

Another lecturer pointed to the cumulative, confidence-building effect of regular oral practice over the course of a training programme. (T7)

Practising speaking skills more often. You always feel better towards the end of the course than at the beginning. (T4)

Since the lecturers in this study already had some experience teaching in English, and typically little time to devote to training, they favoured brief, recurring sessions that would keep them actively using English throughout the year rather than a single concentrated course, a preference that may itself help reduce the anxiety associated with teaching in EMI. As two lecturers explained:

Organizing a course, one hour per week, that would run throughout the year. (5M)

It would be great to have some kind of course twice a month, just to remind you. (6M)

These findings suggest that EMI teaching anxiety among Croatian lecturers stems less from a single deficiency than from the cumulative pressure of several converging factors: imposed entry into EMI, linguistic and pedagogical unpreparedness, and the added demands of a more diverse and linguistically exacting classroom, and that this anxiety, in turn, reshapes core aspects of everyday teaching practice, from grading to classroom interaction. At the same time, lecturers' own accounts point to a clear and consistent way forward: modest, sustained forms of support, delivered through peer collaboration and ongoing language practice, rather than a single corrective intervention.

Concluding remarks and implications

This qualitative case study set out to explore Croatian EMI lecturers' emotions in relation to preparing for and teaching classes in both their L1 and English, the factors that give rise to EMI teaching anxiety, the ways this anxiety shapes classroom practice, and the forms of support lecturers themselves identify as most useful. Drawing on interviews with twenty lecturers at four Croatian faculties, the study addressed each of these four research questions in turn.

With respect to RQ1, lecturers' emotions about teaching in their L1 were shaped less by the language of instruction itself than by their level of experience: early-career uncertainty, rooted in a lack of formal pedagogical training, gave way over time to greater ease and confidence. Teaching in English, by contrast, introduced a distinct and often more persistent form of anxiety, one tied not to inexperience alone but to the compounded demands of linguistic, pedagogical, and intercultural competence (RQ2). This anxiety originated in several converging sources: an imposed rather than chosen entry into EMI, gaps in linguistic and pedagogical preparation, the unpredictability of spontaneous classroom interaction, and the added pressure of teaching a more linguistically and culturally diverse student body, including native or highly proficient speakers of English.

In response to RQ3, the study found that this anxiety does not remain confined to lecturers' private experience but visibly reshapes their teaching practice: it informs how they grade, whether and how they give feedback, how heavily they rely on shared languages or written materials as

linguistic scaffolding, and how much preparatory work they shift onto students. These adaptations indicate that EMI teaching anxiety, far from being a peripheral affective concern, has direct consequences for pedagogical decision-making and, by extension, for teaching quality.

Finally, in relation to RQ4, lecturers converged on a clear preference for support that is sustained rather than intensive: informal peer-observation groups in which colleagues take turns delivering short lectures to one another, and short, recurring language sessions built around the specific communicative demands of the EMI classroom, rather than a single, front-loaded training course. This preference is notable in itself, since it suggests that what lecturers need is not necessarily more training, but a different kind of training: one that treats language and pedagogical development as an ongoing, low-stakes practice embedded in collegial routine, rather than a one-off requirement completed before or at the start of an EMI appointment.

Overall, the study suggests that EMI teaching anxiety in the Croatian context is not a marginal or purely novice phenomenon, as it can affect lecturers at various stages of their careers and is closely tied to the largely unplanned, top-down manner in which many lecturers were brought into EMI in the first place. This points to a clear institutional implication: universities introducing or expanding EMI provision should not treat lecturer readiness as a given, but should instead build in, from the outset, the kind of continuous, low-intensity peer and language support that lecturers in this study identified as most valuable. Future research could usefully extend this work by examining whether such support structures, once implemented, measurably reduce EMI teaching anxiety over time, and by exploring how discipline (e.g., biomedical versus social or technical sciences) and years of EMI experience interact with the sources of anxiety identified here.

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9. Designing Glocally Responsive EMI and Intercultural Competence Faculty Development at a Brazilian Federal University

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Abstract: This chapter presents a research-informed faculty development project designed to support English-Medium Instruction (EMI) and intercultural competence (IC) at a Brazilian federal university. Building on prior diagnostic research with lecturers in Brazil and Portugal, the study addresses persistent gaps in EMI pedagogy, language support, and intercultural integration within a context where EMI remains marginal and unevenly institutionalized. Framed by a glocal perspective, the project adopts a design-based approach that combines needs analysis, targeted training modules, mentoring, and digital innovation to provide sustained, context-responsive support for lecturers. The chapter outlines the rationale, structure, and expected contributions of the project, positioning it as both a locally grounded response to institutional internationalization goals and a scalable model for other public universities in Brazil and comparable settings.

Keywords: English-Medium Instruction, Intercultural Competence, Faculty Development, Internationalization, Brazilian Higher Education.

Introduction

Over the past two decades, English-Medium Instruction (EMI) has become a defining feature of higher education worldwide. Universities across diverse linguistic and cultural contexts have expanded EMI offerings in an effort to strengthen global visibility, attract international students and staff, and prepare graduates for increasingly internationalized academic and professional environments. Despite this rapid growth, EMI continues to face persistent challenges, particularly related to faculty preparedness, pedagogical coherence, and the integration of intercultural competence (IC) as a core educational outcome. These challenges are especially salient in settings where institutional structures offer limited support for lecturers adopting EMI.

In recent years, scholars have emphasized that the success of EMI cannot be reduced to linguistic proficiency or the delivery of disciplinary content. Instead, effective EMI relies on pedagogical approaches that recognize the cognitive, linguistic, and intercultural demands placed on students and lecturers alike. At the same time, internationalization frameworks highlight the development of IC as a key learning outcome of higher education, positioning IC as essential for students' participation in globalized knowledge economies and culturally diverse societies. Yet, empirical studies consistently show that lecturers feel uncertain about how IC should be integrated into EMI courses and underprepared to address intercultural dimensions in their teaching.

Brazil exemplifies many of these dynamics. While national and institutional policies increasingly encourage the internationalization of higher education, EMI remains a relatively recent, marginal, and unevenly implemented practice in Brazilian universities. The country's public, tuition-free system differs substantially from many Global North contexts where EMI emerged as a response to market pressures and international student recruitment. As a result, Brazilian universities must navigate a unique set of opportunities and constraints that shape how EMI can be meaningfully implemented. Within this landscape, the Universidade Federal de Santa Catarina (UFSC) has

articulated, in its Institutional Development Plans (PDI 2020–2024 and PDI 2025-2029), a commitment to expanding EMI offerings and fostering an international academic environment.

Against this backdrop, the present chapter is part of a broader, multi-phased research program that began with two empirical studies examining the perceptions, needs, and challenges of lecturers involved in EMI in Portugal and Brazil. These studies, reported in forthcoming publications (Kremer & Pinto, 2026; Kremer & Pinto, in press), identified persistent uncertainties about the role of IC in EMI, a widespread lack of pedagogical preparation, and a strong demand for practical, institutionally supported training. While those studies will present the empirical findings in full, this paper draws on their central insights as the diagnostic basis for a comprehensive, four-year faculty development project. Rather than advocating the rapid expansion of EMI offerings, the chapter emphasizes the need to build pedagogical, linguistic, and intercultural capacity within universities before scaling up English-medium provision.

The aim of this paper is therefore threefold. First, it synthesizes the high-level findings from these faculty studies, which revealed systemic gaps in EMI preparation and IC integration across two national contexts. Second, it articulates the theoretical foundations, grounded in EMI literature, IC models, and the concept of glocalization, that inform the design of the UFSC project. Third, and most importantly, it introduces a research-informed, glocally responsive blueprint for EMI and IC faculty development at UFSC. This chapter offers a conceptual and design-based account of a large-scale institutional initiative that seeks to operationalize prior evidence into concrete pedagogical, linguistic, and intercultural support for lecturers.

By connecting diagnostic research to institutional action, the chapter contributes a model for how public universities in Brazil can design context-sensitive, theoretically grounded faculty development programs for EMI. It also positions UFSC as a site of innovation in EMI and intercultural education, offering insights that may be relevant not only within Brazil but also for institutions worldwide that seek to balance global pressures with local academic cultures and needs.

English-Medium Instruction: Pedagogical, Linguistic, and Structural Challenges

English-Medium Instruction (EMI) is commonly defined as the use of English to teach academic content in contexts where it is not the dominant societal language (Dearden, 2014). The global spread of EMI has been extensively documented and is often linked to universities' aspirations for international visibility, competitiveness, and the preparation of graduates for participation in globalized academic and professional environments (Macaro et al., 2021). Despite its expansion, EMI continues to pose substantial pedagogical, linguistic, and structural challenges.

At the pedagogical level, EMI requires lecturers to deliver disciplinary content in English while simultaneously managing students' diverse linguistic repertoires, levels of proficiency,

and rates of comprehension. Research shows that lecturers may struggle with instructional clarity, student engagement, assessment, and the balancing of disciplinary rigor with language-aware pedagogy (Macaro et al., 2018; Doiz & Lasagabaster, 2018). Students, in turn, face the dual cognitive burden of learning new disciplinary content while processing that content in a second language, often reporting difficulties with academic writing, listening comprehension, and spontaneous speech (Curle et al., 2020).

Institutional and structural dimensions further intensify these challenges. Many universities introduce EMI as a strategic initiative without providing parallel investments in faculty development, linguistic support, or policy frameworks (O'Dowd, 2018). As Tange (2010) observes, lecturers frequently find themselves caught between institutional expectations for internationalization and the practical realities of teaching through a non-dominant language. In STEM fields, it is common for lecturers to perceive linguistic and intercultural responsibilities as outside their disciplinary mandate (Block & Moncada-Comas, 2022), which complicates the implementation of linguistically and culturally responsive teaching.

Although EMI is the most commonly used term in public discourse, a growing body of research argues that the term is too narrow to capture the complexity of English-medium education in contemporary multilingual universities. Dafouz and Smit (2020, 2023) therefore propose the concept of English-Medium Education in Multilingual University Settings (EMEMUS), which emphasizes the multilingual realities, institutional ideologies, and pedagogical dynamics in which English-medium programs operate. As Dafouz and Smit (2023) note, EMEMUS offers a comprehensive and context-sensitive perspective that situates EMI within multilingual repertoires and institutional structures. Their associated ROAD-MAPPING framework highlights six dimensions shaping English-medium education: roles of English, disciplinary traditions, language management, lecturer and student agency, classroom practices, and the interplay of internationalization and local contexts. Together, these perspectives underscore that EMI challenges extend beyond language proficiency and require coordinated pedagogical, institutional, and sociocultural responses.

This multidimensional view is particularly relevant for contexts such as Brazil, where EMI remains a minor and unevenly implemented practice. Understanding EMI as part of a broader multilingual and institutional ecology provides a crucial conceptual foundation for the design of context-responsive faculty development initiatives.

Intercultural Competence as a Core Outcome of Internationalized Education

Alongside the linguistic and pedagogical dimensions of EMI, the development of IC has become central to contemporary understandings of internationalization in higher education. IC is widely recognized as a key learning outcome that enables students and lecturers to communicate effectively and appropriately across cultural differences, navigate diverse academic

environments, and participate in global knowledge production. Deardorff's (2006) Process Model of Intercultural Competence remains one of the most influential frameworks in this domain, defining IC as the ability to communicate "effectively and appropriately" in intercultural contexts through a combination of attitudes, knowledge, skills, and internal outcomes.

Despite its centrality to internationalization agendas, IC integration in EMI contexts remains uneven. Research repeatedly shows that lecturers feel uncertain about how IC should be addressed within disciplinary teaching, whether it is part of their pedagogical responsibility, and how to operationalize it in classrooms that are often culturally homogeneous or where multilingualism is present but not pedagogically activated. Studies in Europe, Asia, and Latin America indicate that lecturers rarely receive training on intercultural pedagogy, leading to assumptions that IC development occurs implicitly or as a natural byproduct of English use (Pinto, 2018; Werther et al., 2014). Such assumptions overlook substantial evidence showing that IC development requires intentional and structured pedagogical interventions rather than relying on exposure alone (Byram & Hu, 2013; Council of Europe, 2014).

The EMEMUS perspective further reinforces the relevance of interculturality by emphasizing that English-medium education is embedded within multilingual and multicultural university settings. Dafouz and Smit (2020) argue that the integration of IC is not ancillary but inherent to the institutional ecology in which English circulates. From this perspective, interculturality is shaped not only by the presence of international students but also by the interaction between local cultural norms, disciplinary practices, and global academic expectations. This framing is particularly relevant for Latin American contexts, where "internationalization at home" often represents a more realistic and equitable pathway for intercultural learning than mobility-based initiatives.

Taken together, these perspectives underscore that IC is not an optional enhancement to EMI, but a core pedagogical dimension. Integrating IC into EMI therefore requires deliberate instructional design, targeted lecturer training, and sustained institutional support, precisely the gap identified in the studies conducted with lecturers in Brazil and Portugal (Kremer & Pinto, 2026; Kremer & Pinto, in press). These diagnostic insights justify the need for faculty development programs that address not only linguistic and methodological aspects of EMI but also the intercultural competencies necessary for inclusive, globally oriented teaching and learning.

Glocalization, Internationalization, and Contextual Responsiveness

The expansion of EMI has often been driven by global pressures related to rankings, international visibility, and academic competitiveness. However, a growing body of scholarship argues that EMI practices cannot be imported wholesale from Global North contexts and must instead be adapted to local academic cultures, linguistic realities, and institutional priorities. This context-sensitive perspective is captured by the concept of glocalization, which highlights the

dynamic interaction between global norms and local practices (Wilkinson, 2022; Pérez-Paredes & Curry, 2023). As Dafouz and Smit (2023) observe, global pressures for internationalization coexist with local educational traditions, generating both tensions and opportunities for meaningful adaptation.

In the context of EMI, glocalization entails recognizing that global academic English operates within, and must be negotiated alongside, specific sociolinguistic and institutional conditions. The ROAD-MAPPING framework explicitly incorporates glocalization as a central dimension of English-medium education, drawing attention to how institutional identities, disciplinary traditions, lecturer agency, and multilingual repertoires shape EMI practices. From this perspective, EMI cannot be understood as merely adopting English as a medium; it involves negotiating institutional identities, disciplinary traditions, lecturer agency, multilingual repertoires, and local educational values.

Pérez-Paredes and Curry (2023), for instance, show that lecturers interpret and enact internationalization in ways that reflect their institutional cultures and professional identities. For Brazilian universities, where EMI remains relatively new, marginal, and unevenly implemented, a glocal perspective is particularly important. Brazil's public, tuition-free higher education system differs substantially from the contexts in which EMI originally emerged, and Brazilian lecturers may face distinct motivations, constraints, and expectations when engaging with EMI. A glocal framework therefore provides a critical lens for designing EMI initiatives that are both internationally informed and locally viable.

Diagnostic Evidence from Prior Research

The theoretical perspectives outlined above align closely with the findings of previous studies conducted with EMI lecturers in Brazil and Portugal (Kremer & Pinto, 2026, in press). Although the full analyses will appear in dedicated publications, their high-level results provide an essential diagnostic foundation for the UFSC project.

Across both national contexts, lecturers reported uncertainty about their roles in EMI and, in particular, about how to integrate IC into their courses. Many expressed linguistic insecurity, especially regarding spontaneous interaction and academic writing in English. They highlighted gaps in institutional guidance, limited opportunities for training, and the absence of coherent policies or support structures. Several lecturers described EMI as an individual initiative rather than an institutional priority, reinforcing the structural misalignment identified in the literature.

Pedagogically, lecturers described challenges related to student participation and lecture comprehension, noting wide variability in students' English proficiency. They also emphasized the relational dimensions of EMI, including the need to navigate diverse communication styles, classroom expectations, and intercultural dynamics. These concerns mirror the intercultural and multilingual complexities highlighted in the ROAD-MAPPING framework.

Importantly, lecturers in both Brazil and Portugal expressed strong interest in EMI but felt underprepared to teach in English without support. They requested training that combined pedagogy, language development, IC, and continuous mentorship. These diagnostic insights directly informed the design of the UFSC four-year project, which seeks to translate empirical evidence and contemporary theory into a glocally responsive, institutionally coherent model for EMI and IC faculty development.

Contextualizing the Challenge: EMI, IC, and Internationalization at UFSC

The Brazilian HE Landscape

The development of English-Medium Instruction (EMI) in Brazil has been shaped by a combination of national policy shifts, institutional autonomy, and uneven internationalization trajectories. Following the conclusion of the Science Without Borders program in 2016, which had briefly expanded outward mobility and highlighted the role of English in academic exchange, Brazilian higher education entered a period in which internationalization became primarily the responsibility of individual institutions. Without a sustained national strategy or consistent funding mechanisms, internationalization initiatives have tended to emerge in isolated and institution-specific ways rather than as part of coordinated, system-wide planning.

Within this environment, EMI has developed slowly and unevenly, remaining limited in both scale and institutional visibility. Across most public universities, English-medium offerings remain limited in number and scope, frequently appearing as isolated elective courses that depend on individual lecturers rather than institutional planning. These courses are generally concentrated in graduate programs, with far fewer opportunities at the undergraduate level. To the best of the author's knowledge, UFSC's Graduate Program in English is the only known case in Brazil of a fully English-medium program.

Several structural factors contribute to this restricted landscape, including variable English proficiency among students and lecturers, limited institutional incentives to develop EMI, and reduced opportunities for intercultural interaction given the modest presence of international students on many campuses. In the absence of national guidelines or frameworks for EMI implementation, existing initiatives tend to develop independently, resulting in practices whose aims, quality, and pedagogical coherence remain difficult to assess.

A further challenge concerns faculty development. While university internationalization offices often focus on mobility programs or administrative partnerships, few institutions offer structured EMI training that integrates language development, intercultural pedagogy, and content-specific teaching strategies. Consequently, lecturers who choose to teach in English often do so without formal preparation and must navigate linguistic, communicative, and intercultural demands independently. These conditions reflect broader issues identified in international EMI

research but take on specific characteristics in Brazil, where EMI remains a marginal and weakly institutionalized practice.

UFSC's PDI and Institutional Push for EMI

UFSC's Institutional Development Plan (PDI 2020–2024) positions internationalization as a strategic priority and explicitly identifies the expansion of English-medium offerings as a mechanism for increasing international visibility, strengthening research collaboration, and attracting international students. The PDI thus aligns EMI with broader institutional ambitions related to global engagement and academic prestige.

However, the PDI also reveals tensions that complicate the realization of these goals. While EMI is encouraged, UFSC lacks an integrated institutional strategy for preparing lecturers to teach in English and for embedding IC into teaching and learning. The document highlights the university's aspirations for international expansion but does not provide operational guidelines, training structures, or pedagogical models for EMI. As a result, responsibility for EMI implementation is largely devolved to individual lecturers or units, reinforcing the fragmented patterns observed across Brazilian higher education more broadly.

The PDI also emphasizes interdisciplinarity, curricular innovation, and inclusive internationalization. However, without coordinated faculty development structures, these objectives risk remaining declarative rather than transformative. For lecturers, this gap may generate uncertainty regarding institutional expectations, pedagogical standards, and available support when teaching in English. This contradiction highlights the need for an institutional response that aligns internationalization goals with evidence-informed capacity building.

The Strategic Role of PPGI and Institutional Readiness

The Graduate Program in English: Linguistic and Literary Studies (PPGI) is uniquely positioned to lead EMI capacity building at UFSC. With more than five decades of experience offering courses in English, PPGI represents an established EMI environment within the university. This long-standing tradition gives the program not only linguistic and pedagogical expertise but also institutional legitimacy to coordinate and support EMI development across disciplines.

PPGI's role is further strengthened by its interdisciplinary connections and its proximity to institutional units involved in language policy, international relations, and teacher education. These connections position PPGI as a natural coordinating hub for an institution-wide initiative that seeks to move EMI beyond isolated practices. The program's history also allows it to function as a reference point for lecturers who may be interested in EMI but lack experience or confidence in teaching through English.

Taken together, UFSC's policy commitments, existing EMI experience within PPGI, and expressed lecturer interest indicate a high degree of institutional readiness for a structured

intervention. At the same time, the persistence of fragmented practices underscores the need for a coordinated, research-informed project capable of translating institutional ambition into pedagogical reality. This context provides the foundation for the project presented in the following sections.

Research-Informed Design Rationale (Design-Based Logic)

Linking Diagnostic Findings to Design Decisions

The design of the UFSC EMI and IC faculty development project is grounded in empirical evidence generated through prior diagnostic studies conducted with lecturers in Brazil and Portugal (Kremer & Pinto, 2026, in press) and a needs analysis to be conducted at UFSC. Rather than addressing EMI through isolated workshops or language courses, the project adopts an integrated, research-informed design that maps diagnostic findings to targeted pedagogical interventions.

Lecturers frequently expressed concerns about their ability to teach academic content through English, particularly in relation to spontaneous communication, academic writing, and sustained interaction with students. These findings support the inclusion of a dedicated English language and academic communication module, which focuses on functional language for teaching, discipline-specific communication strategies, and the integration of digital tools that can support lecturers' ongoing L2 development.

Lecturers also expressed a desire for pedagogical scaffolding that could help them manage the cognitive and linguistic demands of teaching through English. Many lecturers reported challenges related to pacing, clarity, assessment design, and the need to make content accessible to students with varying levels of English proficiency. These concerns shaped the project's EMI Pedagogy module, which introduces evidence-based strategies for designing inclusive EMI environments, supporting student comprehension, and integrating language-sensitive teaching practices without compromising disciplinary rigor.

A further recurrent theme concerned lecturers' uncertainty about their role in supporting students' intercultural development. Many lecturers acknowledged IC as valuable but were unsure how to translate this understanding into concrete pedagogical strategies. This gap directly informed the creation of a dedicated IC module based on Deardorff's (2006) Process Model tailored to the Brazilian HE landscape. The module aims to encourage lecturers to design learning activities that foster intercultural awareness, communication, and collaboration within EMI contexts.

The research also indicated that lecturers benefit from long-term, collaborative support rather than isolated training events. Many participants described feeling isolated in their EMI efforts, lacking peers or institutional structures to provide feedback and guidance. This insight motivated the inclusion of mentoring mechanisms and communities of practice, which create

an ongoing support network led by PPGI and connected to other institutional units. These structures encourage reflection, exchange of experiences, and sustained professional growth.

Finally, the diagnostic studies revealed institutional fragmentation as a significant barrier to EMI consolidation. Lecturers often operate without clear institutional expectations or coordination, leading to inconsistent practices and uneven student experiences. This finding shaped the project's interdisciplinary design, which brings together PPGI and other interested graduate programs. By integrating these units, the project addresses fragmentation and lays the groundwork for a coherent, institutionally supported EMI ecosystem at UFSC. Together, these design components translate empirical insights into a structured, multilevel intervention that responds directly to the needs and realities identified by lecturers.

Glocal Principles in the Design

A central principle guiding the project is glocalization, which emphasizes the adaptation of global models to local academic, linguistic, and cultural contexts. While EMI and IC frameworks used internationally provide valuable guidance, they must be tailored to the specific characteristics of Brazilian higher education. The design therefore avoids importing training models wholesale and instead integrates global best practices in ways that align with UFSC's institutional culture, student demographics, and multilingual realities. This approach acknowledges that EMI in Brazil operates within a predominantly Portuguese-speaking academic environment, where international student numbers are limited, and English may play an additional academic role.

Glocal principles also inform decisions about accessibility and sustainability. The project is designed to be cost-effective and feasible within the constraints of a Brazilian public university, using readily available institutional resources and emphasizing scalable practices. By grounding the design in the university's pedagogical traditions, communication norms, and institutional mission, the project aims to create an EMI model that is both contextually relevant and responsive to global trends in internationalization.

Alignment with Institutional and National Priorities

The project directly aligns with UFSC's Institutional Development Plans, both the 2020–2024 plan under which the current project was originally conceived and the 2025–2029 plan that succeeded it. The 2020–2024 PDI identified the expansion of English-medium course offerings as a strategic initiative for developing global and intercultural competencies, explicitly naming the training of lecturers to teach in English as a related priority. UFSC's own 2024 annual evaluation report indicates that this expansion proceeded unevenly across levels: at the graduate level, the number of courses taught in English was tracked consistently throughout the five-year cycle and met or exceeded institutional targets in four of five years, rising from 55 courses in 2020 to 68 in 2024, reaching 145% of the target that year. At the undergraduate level, by contrast, reporting was available only for 2020 and 2021, with no data recorded for the remaining three

years despite continued or rising targets. This asymmetry reinforces the rationale for the present project's focus on graduate-level EMI: it is the level at which English-medium teaching is both most established and most reliably documented at UFSC, making it the most immediate and evidence-grounded site for pedagogical intervention. The 2025–2029 PDI maintains the same underlying priorities: internationalization remains a cross-cutting strategic area, English and foreign-language course offerings continue to be named as a core action, and the plan explicitly calls for the capacity-building of lecturers to teach in these languages. The project provides the pedagogical and linguistic foundations necessary for lecturers to sustain and extend this growth, addressing the training gap the PDI itself identifies and operationalizing these goals rather than leaving them at the level of policy discourse.

At the national level, the initiative aligns with ongoing discussions within Brazilian higher education about the need to develop more coherent internationalization strategies beyond mobility, including curriculum design and faculty development. By situating EMI and IC development within these broader institutional and national priorities, the project contributes to UFSC's visibility and positions the university as a leader in developing glocal EMI models for the Brazilian context.

The UFSC EMI and IC Faculty Development Project: A Glocal Blueprint

Project Architecture Overview

The UFSC EMI and IC project is designed as a multi-year, multi-stage initiative that responds directly to the diagnostic findings discussed in Section 4 and to the institutional priorities outlined in Section 3. Rather than offering isolated workshops or short-term language training, the project proposes an integrated faculty development trajectory that supports lecturers over time and frames EMI as a pedagogical and institutional practice embedded in UFSC's academic and social-cultural context.

The project is structured around five core components: a needs analysis phase, followed by three training modules (EMI pedagogy, English proficiency and academic communication, and IC) and a mentoring and ongoing support system. These components are implemented sequentially across four years, following a design-based logic in which data collection, intervention, and reflection inform one another. This iterative structure allows the project to remain responsive to emerging needs while maintaining a coherent institutional direction.

Component 1: Needs Analysis

The project begins with a comprehensive needs analysis designed to generate an updated, institution-specific understanding of EMI and IC practices. Building on previous diagnostic research conducted in Brazil and Portugal, this component employs a mixed-methods approach to capture lecturers' experiences, expectations, and perceived challenges related to EMI.

Data collection includes institutional document analysis, online questionnaires, and semi-structured interviews involving lecturers, administrators, and, where relevant, students. Lecturers from all graduate programs at UFSC will be invited to participate, reflecting the fact that the majority of EMI courses offered at the institution are at the graduate level. This combination allows the project to identify not only individual training needs but also structural and organizational factors shaping EMI implementation at UFSC. The findings directly inform the sequencing and content of the subsequent training components.

Importantly, the needs analysis is not treated as a one-time preliminary step. Instead, it functions as a recurring reference point throughout the project, supporting ongoing evaluation and adjustment. This approach reflects the project's design-based orientation and reinforces the central role of evidence in guiding institutional action.

Component 2: EMI Pedagogy Module

The EMI pedagogy module addresses lecturers' reported need for pedagogical guidance when teaching content through English. Drawing on international EMI research, previous research conducted by the author, and the needs analysis at the institution, the module focuses on practical strategies for planning, teaching, and assessing EMI courses in ways that support student learning and engagement.

Key topics include managing cognitive and linguistic load, student-centered teaching, designing tasks that scaffold comprehension, using visual and multimodal resources, handling classroom interaction in English, and developing assessment practices that are fair and transparent for students working in an L2. The module also encourages lecturers to reflect on their own disciplinary traditions and on how these interact with EMI. This reflection is particularly important in a glocal context, where lecturers must balance global disciplinary norms with local academic cultures and student profiles.

The module is delivered through a sequence of interactive sessions that combine conceptual input, collaborative task design, and peer feedback. Lecturers are encouraged to work with their own syllabi, teaching materials, and assessment tools, strengthening the connection between training activities and classroom practice. This structure also supports the gradual formation of a community of practice around EMI pedagogy at UFSC.

Component 3: English Proficiency and Academic Communication Module

The second component focuses on lecturers' English proficiency and academic communication needs. The diagnostic studies showed that many lecturers feel comfortable with prepared lectures but less confident in spontaneous spoken interaction, extended discussion, and written communication in English. In response, this module targets functional language for teaching, including explaining complex content, eliciting student participation, managing questions, and giving feedback.

Key areas include academic writing and professional communication, particularly in relation to syllabus design, assignment instructions, feedback to students, and communication with international colleagues. It integrates digital tools that can support lecturers' ongoing language development, including AI-based writing assistants, while encouraging critical and reflective use of these tools.

The module also incorporates digital tools that can support language development and materials preparation. These tools are introduced selectively and critically, with attention to ethical use, transparency, and pedagogical alignment. The overarching aim is to enhance lecturers' confidence and strategic competence in English rather than to promote native-like proficiency.

Component 4: Intercultural Competence Module

The IC module focuses on integrating intercultural learning into EMI and other internationally oriented courses. Grounded in Deardorff's (2006) Process Model of Intercultural Competence and adapted to UFSC's institutional context, the module supports lecturers in designing pedagogical activities that foster intercultural awareness and communication.

Topics include identifying intercultural dimensions within disciplinary content, designing tasks that promote reflection and dialogue, and managing classroom interaction in linguistically and culturally diverse settings. Although many EMI classrooms at UFSC may be linguistically homogeneous, mostly Brazilian students, the module emphasizes intercultural diversity in terms of social backgrounds, academic trajectories, and regional identities.

This module is closely linked to the EMI pedagogy component, reinforcing the view that language, content, and IC are interconnected rather than separate instructional domains. Lecturers are encouraged to view IC as a pedagogical resource that can enhance disciplinary learning and student engagement.

Component 5: Mentorship and Ongoing Support

To support sustained professional development, the project includes a mentoring and follow-up structure coordinated by PPGI. This component responds directly to lecturers' reported sense of isolation and to the absence of ongoing institutional support for EMI teaching.

Mentoring activities include individual consultations, group meetings, and opportunities for peer exchange. These interactions provide structured spaces for reflection, feedback, and collaborative problem-solving, contributing to the gradual consolidation of shared pedagogical practices. Over time, the aim is to establish a stable community of practice capable of supporting EMI development beyond the project's funded period.

Implementation Timeline

The project unfolds over four years through a sequence of interconnected phases. The first year focuses on needs analysis and the establishment of institutional partnerships. The second and third years involve the implementation and refinement of training modules and mentoring structures, informed by ongoing evaluation. The fourth year is dedicated to consolidation, analysis, documentation, and the development of guidelines to support institutional scaling within UFSC and, potentially, across other Brazilian institutions.

Why This Blueprint is Scalable for Other Brazilian HEIs

Although tailored to UFSC's context, the project is designed with scalability in mind. Its modular structure allows other Brazilian public universities to adapt individual components according to their resources and institutional priorities. By grounding EMI and IC development in local realities while drawing selectively on international research and tools, the project offers a glocal blueprint for sustainable institutional change.

Expected Implications and Contribution

Institutional Impact at UFSC

The project is expected to generate several institutional benefits for UFSC by strengthening the quality, coherence, and sustainability of English-medium instruction and IC development. By offering integrated training that links pedagogy, language, and interculturality, the initiative is expected to expand lecturers' capacity to design courses that are both accessible and academically rigorous. This may improve students' learning experiences in EMI contexts and support more equitable participation among learners with different levels of English proficiency. The mentoring and community-of-practice structures also contribute to institutional culture change by promoting collaboration, reducing lecturer isolation, and establishing shared understandings of what constitutes high-quality EMI at UFSC.

Over time, the project may stimulate the creation of new EMI courses across disciplines, supported by clearer institutional expectations and more robust pedagogical foundations. The data collected throughout the project are also expected to inform policy discussions within UFSC about language use, internationalization strategies, and curricular design. This evidence base can help align institutional goals with classroom realities, strengthening UFSC's overall readiness to engage in international collaboration and to attract a more diverse body of students.

National and International Significance

Although the project is tailored to UFSC's context, its design logic responds to broader challenges in Brazilian higher education, where EMI remains rare, fragmented, and largely unsupported. The project offers a model that other federal universities can adapt to their own needs, providing a feasible pathway for developing EMI and IC without requiring substantial new resources. Its glocal orientation is particularly relevant in the Brazilian context, where diverse linguistic and cultural realities require flexible, context-sensitive approaches rather than the direct adoption of models developed in other regions.

Internationally, the project contributes to ongoing discussions about EMI in the Global South by demonstrating how research-informed, institutionally grounded interventions can support sustainable capacity building. By foregrounding IC and lecturer support rather than focusing solely on English proficiency, the project aligns with contemporary perspectives and expands the conversation about how EMI can function ethically and effectively in multilingual environments. The project also strengthens UFSC's participation in key international networks such as ICLHE, ELIPro, BAAL, and FAUBAI, which prioritize inclusive and context-sensitive approaches to internationalization. The initiative thus positions UFSC within relevant international networks, reinforcing the university's engagement with global debates on higher education internationalization.

Academic Contribution

The project advances scholarship on EMI and IC in three key ways. First, it operationalizes diagnostic insights from previous research into a structured, multi-component intervention, offering a model of how empirical findings can shape institutional practice. Second, it provides a glocal framework for EMI and IC development that may apply to other contexts where English plays a limited but strategically important role. This contribution broadens the theoretical and practical understanding of how EMI can be adapted to settings with modest internationalization infrastructures and linguistically homogeneous student bodies. Third, the project bridges individual lecturer experiences with institution-level strategies, demonstrating how bottom-up diagnostics and top-down planning can be combined in a design-based approach. The implementation and evaluation of the project are expected to generate additional empirical outputs, including analyses of lecturer development, student experiences, and institutional change processes.

Taken together, these contributions reinforce UFSC's potential to serve as a national reference point for EMI and IC integration and provide a foundation for future research and institutional initiatives in Brazil.

Conclusion

This chapter has argued that the expansion of English-Medium Instruction (EMI) in Brazilian higher education requires a shift from ad hoc implementation toward institutionally grounded, evidence-informed support for lecturers. Drawing on prior diagnostic research with lecturers in Brazil and situating these findings within the specific internationalization context of UFSC, the manuscript has presented a four-year faculty development project as a structured response to persistent gaps in EMI pedagogy, language support, and IC development. Rather than treating EMI as a purely linguistic endeavor, the project frames it as a pedagogical, institutional, and intercultural practice embedded in local academic realities.

A central contribution of this work lies in demonstrating the importance of building institutional support for EMI through systematic evidence. The needs analysis that anchors the project ensures that training design responds to lecturers' actual challenges rather than relying on generic or imported models. This design-based logic positions research not as a retrospective evaluation tool but as a guiding mechanism for institutional change. In a context where EMI remains marginal and unevenly documented, such an approach offers a viable alternative to fragmented initiatives that place disproportionate responsibility on individual lecturers.

The UFSC project is presented both as a locally grounded intervention and as a glocal model with broader relevance. It responds directly to the university's institutional development plan and to the specific conditions of a Brazilian public university, including limited EMI provision, modest levels of international student presence, and constrained resources. At the same time, the project engages with international debates by integrating EMI pedagogy, IC, mentoring, and digital innovation into a coherent framework. This dual positioning allows the project to contribute to global discussions on EMI while avoiding the uncritical transfer of models developed in different sociolinguistic and institutional contexts.

Looking ahead, the project is expected to generate multiple forms of output. These include empirical evaluation studies examining lecturer development, classroom practices, and institutional change over time, as well as practical guidelines to support EMI consolidation at UFSC. The project also opens pathways for national dialogue by offering a scalable framework that other Brazilian institutions can adapt to their own contexts. Finally, the initiative provides a foundation for further scholarly publications that bridge diagnostic research, design-based intervention, and internationalization policy.

In sum, this chapter positions the UFSC project as a concrete response to locally identified challenges and as a contribution to the glocalization of EMI and IC in higher education. By foregrounding evidence, institutional coherence, and contextual sensitivity, it advances a sustainable pathway for EMI development in Brazil and comparable settings.

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10. Designing E-Learning Units for English-Medium of Instruction (EMI) Professional Development: Theoretical and Practical Considerations

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Abstract: This article reports on the development of an e-learning course consisting of six units designed to prepare and support university teachers engaged in Foreign-Language Medium of Instruction. Taking English-Medium Instruction (EMI) as the default teaching scenario, the e-learning units will be expanded to include other languages such as French- and German-Medium Instruction as variants. The project, a collaboration between the ZHAW (Switzerland) and the University of Freiburg (Germany), grew out of a long-standing workshop series and institutional coaching programmes addressing the challenges of implementing EMI in higher education. Guided by a dialogic pedagogical framework (Studer & Kelly, 2023), the e-learning units aim to promote low-threshold, authentic, reflective, and interaction-rich professional learning for university staff. The article outlines the theoretical background and pedagogical foundations underlying the course, discusses practical considerations surrounding macro- and micro-level design principles, and illustrates the dialogic approach with reference to the first unit of the course.

Keywords: Professional Development, English-Medium Instruction, e-Learning.

Introduction[10]

The expansion of higher education programmes offered in foreign languages, particularly English as a Medium of Instruction (EMI) in European higher education, has created new demands for professional development for university teachers. Despite growing institutional interest in offering courses or whole study programmes taught through English, academic staff often find themselves navigating complex multilingual, cultural, and pedagogical challenges without tailored training opportunities to develop the necessary competences. These challenges cannot be addressed by providing traditional language training only: They require preparation that equips teachers with the knowledge, approaches, tools, and communicative competence needed to create effective learning opportunities for students.

In response, the ZHAW School of Applied Linguistics (Switzerland), in collaboration with the University of Freiburg (Germany), developed a series of self-directed e-learning units for EMI teachers that offer support to teachers beyond language help. These e-learning units are meant for subsequent integration into the *EPICUR Centre for International Teaching and Learning*, the joint platform for educational competence development for the partner universities in the EPICUR European University Alliance.

Assuming that a change of language of instruction triggers intercultural, communicative, social, and learning challenges in the classroom (compare, e.g. Byram, 2008), the e-learning units take a broader look at EMI, addressing topics ranging from personal motivation, positioning, identity, and the impact of English as a lingua franca in higher education, to interculturally sensitive communication and didactics when dealing with an international, linguistically and

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culturally diverse audience. They are intended as a comprehensive resource that sensitises university employees who teach through a language that is not their first language to understand and appreciate the challenges of EMI and to further develop their teaching competence.

The e-learning course presented in this article forms part of a broader research and development trajectory at ZHAW that builds on international workshops, diagnostic tools and assessments developed over the course of the past decade. The e-learning units introduced in this article summarise these activities into six broad themes, which have been prepared on the foundations of a dialogic pedagogical approach.

In the present article, we will outline the design process in detail and discuss theoretical, conceptual, and practical considerations when operationalising a dialogic pedagogical approach in an asynchronous digital environment. First, we will introduce the six units from a thematic and historical perspective. We will then discuss pedagogical foundations underlying the training units, before presenting the macro- and micro-design principles of the e-learning units. In the final section, we will discuss the first unit in greater detail.

Origin and Thematic Scope of the e-Learning Units

The e-learning units introduced in this paper build on a multi-year series of workshops developed by the authors at ZHAW, which have been delivered within different university coaching and assessment programmes in Switzerland and abroad. These workshops, typically conducted at the invitation of institutional leaders, aim to support staff transitioning to EMI. Typically offered as one-day workshops, they consist of input provided by experienced facilitators, stimulated discussion with the participants, reflective groupwork, and the creation of developmental visions at the end. They often make use of a set of diagnostic tools developed to assess teacher practices and provide tailored feedback.

In 2023, the workshop series developed at ZHAW informed a one-week EMI training programme at a partner institution in Japan, where the idea of producing more formalised self-study training materials first emerged. In 2024, the development of e-learning units was formalised in the context of a higher education project at the University of Freiburg (Germany). The development of six e-learning units was planned, which were intended to be published in a course format as Open Educational Resources (OER) for independent learning. These six e-learning units were to be self-contained and to serve as a basis for self-study or blended-learning training facilitated by EMI specialists.

In a first step, learning objectives were defined following a backward design approach (Wiggins & McTighe, 2012). From the workshop series, two broad learning objectives were derived:

1. Participants can describe the transformative impact of foreign-language use in higher education settings on their own teaching and on their students' learning experiences.

2. Participants can plan and deliver their courses based on a language-sensitive approach to teaching, taking pedagogy, methodology, communicative behaviour, and assessment into consideration.

In a second step, training themes were identified and grouped under the following six working titles:

1. About EMI
2. EMI and Internationalisation
3. Language Considerations
4. Didactic Considerations
5. Dialoguing with Students
6. Continuous Professional Development

Based on the themes, holistic descriptions of the units were created, and learning objectives for each unit were defined. The holistic descriptions were as follows:

- Unit 1 defines what EMI is (and is not) and explains the background to the development of such courses in universities in Europe and the argumentative and political context in which this development is embedded.
- Unit 2 deals with EMI as a measure for internationalising curricula with respect to soft skills, intercultural competence, and global citizenship development.
- Unit 3 integrates considerations about the students' and the teachers' linguistic competences into the planning of courses in a non-native multilingual ecosystem so teachers can make principled and effective choices in the use of a classroom lingua franca. This includes topics such as the (standard) variety used, errors, competence thresholds, or translanguaging.
- Unit 4 identifies didactic challenges and opportunities which communication through a foreign language presents to both teachers and students. Appropriate foreign-language medium learning scenarios are introduced that are sensitive to the communicative abilities and needs of students in interactive and multilingual contexts.
- Unit 5 addresses the importance of interculturally sensitive communication that focuses on authentic dialogue as a relevant pedagogical approach in EMI settings. It touches on both communicative and didactic dimensions of dialogue that enable teachers to create appropriate foreign-language medium scenarios that integrate opportunities for authentic dialogue with and between students.
- Unit 6 focuses on the long-term nature of developing as a teacher in a foreign language by introducing relevant tools and ideas for self-assessment, feedback, and reflection.

Based on practical considerations, the time needed to complete each unit was determined to be no more than five hours each, leading to a total of thirty hours of self-study work including reading, reflections, and writing of a final unit assignment. The indication of study effort was based on (a) study time expected when engaging seriously with the unit content and activities; (b) study time required for a micro-credential in the order of one ECTS point (30 hours according to the European Credit Transfer and Accumulation System).

Theoretical and Pedagogical Framework

The teacher training approach behind the e-learning offer is grounded in a dialogic framework outlined in Studer and Kelly (2023). It assumes that meaningful interaction in EMI is key to learning (Doiz & Lasagabaster, 2023) and that authentic dialogue in higher education is more important for EMI success than language ability (Studer, 2015, 2016). Studer and Kelly (2023) further noted a persistent tendency among EMI teachers to focus disproportionately on their own linguistic performance, which restricts genuine dialogic engagement with students as linguistic and cultural others.

Dialogic engagement in the classroom requires a perspective of communication that is situated, uniquely tied to the interlocutors and the moment in which it occurs. This perspective has been developed in a theory of dialogic pedagogy (e.g., Matusov, 2009), which rests on a philosophy of dialogue, or dialogicality (Bakhtin, 1981, 1986; Marková, 2000, 2003). Dialogue, in this conception, can be interpersonal (i.e., between two co-present interlocutors), but it may also be internal, as in dialogic engagement with a topic through texts or audiovisual stimuli. In language teaching, the dialogic framework aligns well with counselling-learning or the “whole-person model” (Curran, 1972), which focuses on the teacher’s ability to draw learners into meaningful exchange.

Matusov (2009, p. 2-3) embraces the view that all “meaning-making process is inherently dialogic” and that meaning-making is “always creative; it is a surprise” because one can never determine fully how another will respond. Authenticity is crucial for enabling such surprise, which entails that participants engage in activity that is meaningful to themselves and visible as such to others. It requires some degree of self-disclosure (cf. Bleich’s 1995, 1998, pedagogy of disclosure), showing how one wishes to be seen. Authenticity also involves situating learning in contexts resembling real-life use.

The emphasis on authentic dialogue in EMI shifts focus away from mono- or bilingual/bicultural performance to plurilingual and pluricultural sensitivity. This is crucial in the context of international higher education where teaching and learning are culturally influenced constructs that find expression in pedagogy, materials, ways of speaking and writing, as well as non-verbal communication. Culturally-influenced teaching and learning practices become so habituated that they are often not recognised as cultural (Erickson, 2010, pp. 34–39). As a result, when students and teachers from different cultural backgrounds meet, intercultural tensions may

be misattributed to a student's or teacher's personality rather than to culture (Erickson, 2010, pp. 38–39). Misalignment between classroom practices and students' home cultures can limit learning opportunities, as students (and teachers) differently interpret and construct classroom interactions (Au & Kawakami, 1994).

While in EMI, teachers and students frequently do not share the same linguistic and cultural background, teachers tend to treat the foreign language merely as a neutral vehicle for content and make little or no adjustments for diversity (Studer & Kelly, 2023). From a dialogic perspective, this is problematic as language and culture are viewed as inseparable. This is evident in the concept of linguaculture, which holds that while language and culture can be separated at a surface level, at deeper levels of cognition and self the distinction loses legitimacy (Shaules, 2019, pp. 18–22, also Nwobu, 2019). Linguaculture, according to Risager (2020, p. 116), comprises semantics–pragmatics (meaning-in-context and culturally patterned communication), poetics (aesthetic and creative dimensions such as humour, metaphor, wordplay, style), and identity (how language both reflects and shapes personal and group identities). In dialogically grounded EMI, these linguacultural dimensions can be seen as central to pedagogical practice and lesson planning. The pedagogical implications of a dialogic perspective in EMI go beyond simply using dialogue for interaction in the classroom. Wegerich (2013, p. 29) argues that dialogue must be both a means *and* an end in education (education *through* and *for* dialogue). In dialogic education, therefore, meaningful dialogue, as well as the ability to dialogue, can be considered a key learning outcome. The assumption is that content learning improves when teachers and students achieve a substantive dialogue about the content. This shifts, in part, the focus from the content itself to communicative engagement with it.

A major goal of dialogic education is creating structured space for students to express their voice. Voice has multiple dimensions. Here, it refers both to students' expression of identity ("I speak, therefore I am" Inoue, 2003, p. 180, also Lucius-Hoene & Deppermann, 2004) and to the expression of culturally shaped dispositions ("habitus," Bourdieu, 1977). The expression of voice depends on an environment where students feel safe, respected, and valued. The idea of providing a space for voice aligns with higher education policies promoting student-centred teaching (Smith et al., 1950) and related developments regarding teaching competences (Hüther-Pape & Hempfling, 2026), pedagogies of care (Gay, 2018; Noddings, 2003), and project- and challenge-based learning (e.g., Leijon et al., 2022). These approaches resonate with principles of andragogy (Knowles, 1984).

Dialogic engagement further presupposes that students' linguacultural repertoires are welcomed and mobilised as resources for learning (Gay, 2002). It means taking students' cultural backgrounds and lived experiences into account to tailor methods and content to their resources and frames of reference (Gay, 2002; Villegas & Lucas, 2002). In order to address students with diverse backgrounds effectively and improve learning outcomes, the following core principles of culturally responsive pedagogy can be identified (adapted from Jabbar & Hardaker, 2013): (1) knowledge of cultural diversity and socio-cultural consciousness; (2) the

ability to design culturally relevant curricula, coupled with an affirmative, resource-oriented attitude toward students; (3) the capacity to demonstrate care, build learning communities, and recognise teachers as agents of change; (4) confidence in communicating across cultures and in understanding and supporting students' knowledge construction; and (5) an understanding of students' lives and realities, along with the ability to adapt instruction to meet diverse learning needs.

Macro- and Micro-Level Design Principles

In the course, the dialogic approach was integrated at the level of both content and methodology, shaping the entire instructional design of the individual e-learning units, from macro-level sequencing to micro-level task construction. While topics such as dialogue, interaction, and cultural sensitivity play an important role in all units, Unit 5 is entirely dedicated to the dialogic classroom, encouraging teachers to establish dialogic practices as an integral part of their EMI. At the methodological level, the e-learning units themselves were designed to facilitate dialogic interaction, both with the learning material and with peers.

A central aim of the macro-design was to create spaces in which teachers could experience genuine disruptions of their belief systems. Such moments arise when teachers are confronted with situations that challenge their tacit assumptions and interrupt routine patterns of interpretation. This form of disruption was intended not as destabilisation, but as a catalyst for deeper reflection that may lead to self-discovery and reconfiguration of pedagogical understandings.

To guide this process, we drew on distinctions in reflective practice between reflection on the self or on an object of inquiry (e.g. theory, data, study object, task) (cf. Studer, 2017, pp. 653–54). Bengtsson (1995, p. 26) contrasts these as "self-reflection" versus "thinking" and criticises Schön (1983, 1987) for treating reflection in and on action mainly as object-focused thinking, which may lack any backward reference to the reflecting person. For Bengtsson (1995), true reflection requires self-insight and explicit engagement with the teaching self. This distinction allows us to differentiate between habitual, routinised forms of reflexivity, where teachers integrate teaching-based routines, and deeper, disruptive forms of self-reflection that challenge personal beliefs. While both types of reflection may be useful in EMI, the latter, in particular, aligns with our idea of genuine reflection that can transform teaching practice toward dialogic engagement.

To facilitate genuine self-discovery, we structured the e-learning units so that they build progressively on one another, creating opportunities for a gradual confrontation with teachers' own expectations, viewpoints, and practices. This deliberate confrontation, understood as a form of productive disruption, was seen as a pathway for envisioning further professional development and planning and implementing sustained change.

The developmental trajectory of the e-learning units unfolds in three phases: Units 1 and 2 focus on the participant's analysis of their institutional, linguistic, and cultural ecosystems. They are encouraged to examine the EMI practices present in their institutions. The units encourage

questions such as the following: Which practices can I observe? Which, if any, are worthy of imitation? How do these practices align, or conflict, with my own beliefs about teaching and learning? These questions are designed to help teachers articulate their personal stance toward EMI and to recognise both the opportunities and constraints shaped by their context. We refer to this contextualised reflective space as the teachers' 'habitat', encompassing institutional policies, disciplinary expectations, existing competences, and local norms. Once teachers have clarified their position within this habitat, they are able to define their scope for growth in key areas of EMI.

Following these opportunities for self-and-context-awareness, the second phase centres on productive disruption. Units 3 to 5 are structured to guide teachers from an initial awareness of their own language performance, through an understanding of the relevance of other-language-based communicative competence, towards an expanded *other-awareness* that invites them to re-examine and potentially transform their teaching practices. This progression mirrors the competence development steps described by Studer (2022), moving from ad-hoc speech production to sustained monologue, then to dialogic interaction, and finally to broader considerations of syllabus design.

Unit 6 concludes the training by shifting the focus to long-term professional growth. It offers an outlook and practical strategies for continuous development, emphasising sustainability over one-off training effects. Teachers are encouraged to embed transformative practices into their ongoing professional trajectories. This final unit also provides structured tools for guided self-reflection as well as instruments for collecting peer- and student- feedback, thus supporting a continuing cycle of reflective practice.

At the micro-level, we built the units in such a way as to facilitate a dialogue with oneself and peers on EMI topics, inspired by the nine elements of authentic e-learning designs proposed by Herrington et al. (2010, p. 18; cf. originally Herrington & Oliver, 2000):

1. Provide authentic contexts that reflect the way the knowledge will be used in real life;
2. Provide authentic tasks;
3. Provide access to expert performances and the modelling of processes;
4. Provide multiple roles and perspectives;
5. Support collaborative construction of knowledge;
6. Promote reflection to enable abstractions to be formed;
7. Promote articulation to enable tacit knowledge to be made explicit;
8. Provide coaching and scaffolding by the teacher at critical times;
9. Provide for authentic assessment of learning within the tasks.

To facilitate a dialogue with oneself, participants in the course are invited to present assumptions about their own behaviour, performance or beliefs, which are then further explored and tested through activities and exercises so they can revisit their assumptions as they progress through the units. In the final task of each unit, participants can present a validated or revised version

of their assumptions. This engagement with the content follows an inquiry-guided approach (cf. Lee, 2011), whereby the object of inquiry is the self.

For this learning progression to take place, each unit centres on a task that guides participants through the learning content. These tasks are authentic to the extent that they are complex and "ill-defined" (Schön, 1983, p. 40; Jonassen, 2000, 2010), much like real-life scenarios, tapping the participants' experiences with, or assumptions about, challenges involved in EMI approaches and practices. The tasks are deliberately designed to leave more questions open than answered and to allow for different solutions and perspectives. Focusing on such authentic tasks enables participants to suspend potential disbelief and to take ownership of their learning progress. The authentic task is embedded in an authentic learning environment in which participants can decide their own learning cycle. This means that the e-learning units are not linearly structured but consist of building blocks that can be selected in any progression the learners see fit.

The units further offer participants the opportunity to access other learners who completed the unit tasks before them (cf. the apprenticeship system of learning, Herrington et al. 2010, p. 23-24; Collins, 1988). This has been implemented in two ways: First, participants are invited, when they register for the course, to create a participant profile where they share information about themselves that may be relevant to the EMI teaching community (position, years of teaching experience, discipline, etc.). Other participants can browse these profiles and, if interested, get in touch with peers via the e-learning environment. Second, participants are invited to share their task solutions with others on the joint platform and to respond to the solutions of their peers. The idea is to encourage participants to reach out to peers at various levels of expertise for the purpose of comparing their profiles and task solutions and to share ideas and thoughts with others in an asynchronous online setting.

Throughout the units, participants are prompted to reflect on the topics discussed and to document their learning progress in a personal diary. The reflective prompts, while focusing on different topics of the units, are structured in a way that invite reflections on multiple perspectives of the same problems or challenges related to the task. The purpose of these continuous reflections is to challenge the participants' belief systems and to enable them to consider alternative perspectives.

The individual units, and indeed the course, are completed when course participants have uploaded their solutions to the tasks in the shared courseroom. The final output is a 'polished product' in which the participants articulate their argument, position or practice for others to agree or disagree with (Herrington et al., 2010). The completion of each unit leads to a badge awarded by the higher education institution; the completion of the whole course consisting of the six units leads to a course certificate. The badges and course certificate provide recognition for the work invested into the training.

Example: Implementation of Unit 1

Unit 1, the introductory e-learning unit, was implemented in the e-learning authoring software *Articulate Rise*. The development of Unit 1 served as a prototype and template for the other units in terms of structure, types and variation of activities, as well as thematic complexity.

Following a competence-oriented approach in the preparation of Unit 1, we adhered to principles of Constructive Alignment (Biggs, 2014) to ensure that all content, as well as interactive and review activities, pertained to the intended learning outcomes. As a first step, content priorities were set, and core e-learning content was selected from a comprehensive manuscript prepared by the EMI experts at ZHAW.

To allow for optimal learning gain in a multimedia learning environment, we followed principles deduced from Cognitive Load Theory (e.g., Sweller et al., 1998; Sweller, 2023) as well as from the Cognitive Theory of Multimedia Learning (Mayer, 2014). In order to reduce extraneous cognitive load for e-learning participants, we relied on Mayer's (2014) Coherence Principle: Considering the identified content priorities, we substantially reduced texts from the original manuscript to increase ease of processing and prevent learners' cognitive overload. To achieve this, only key content and text elements were considered for inclusion in the e-unit, and continuous text was replaced with concise bullet points or other visual forms of text representation to foreground key ideas.

We also considered Mayer's (2014) Signaling and Segmenting Principles: By placing typographical emphasis on central concepts and further providing a consistent visual structure with divider elements, we designed the unit to help learners to efficiently identify and select relevant information. Unit 1 was divided into four thematic parts, which were then each subdivided into smaller segments to allow for easier processing. A progress bar shown on every page was inserted to further support learners' processing of the content in manageable segments.

As peer interaction was limited in the asynchronous e-learning environment, it was particularly important to consider the role of motivation. In designing Unit 1, we relied on attention strategies such as Keller's (1987) ARCS model, taking into account learners' attention, relevance, confidence and satisfaction. We specifically focused on strategies to direct attention, sustain curiosity, and foster individual meaningfulness. Thus, we aimed to prevent feelings of monotony, ensuring variability by alternating media types, such as videos, audio files, interactive pictures, graphics, instructional texts, and interaction formats. Further supporting feelings of individual involvement, the macro- and micro-design principles were considered, including tasks that required reflection, as well as checking questions, and one authentic scenario-based task. To boost continuous motivation and foster deep learning, we provided learners with a template for a portfolio in which they could record their thoughts on reflective prompts.

The authentic task framing in Unit 1 (Figure 1) was integrated in two places: First, it is briefly introduced at the beginning of the unit so that learners can keep it in mind while working through the unit. They are then invited to carry out the task again at the end of the unit. The

task was designed to provide the participants with the opportunity to incorporate personal assumptions and reflections into a practical product. This practical product was envisaged either as a presentation at a faculty or board meeting in which participants argue for, or against, the importance of teaching their particular subject through English or as the notes that the participants would take to such a meeting. The task was broken down into sub-components to ensure that learners considered all key aspects, including internationalisation, educational, institutional, and professional benefits, and possible objections. The sub-components of the authentic task were based on the topics of a series of reflective prompts, called 'Professional Relevance Questions', that were integrated at key points throughout the unit and which were meant to connect the unit's theoretical foundations with professionally relevant real-life scenarios.

Table 1. Authentic Task in Unit 1

Scenario Unit 1:

We would like you to produce a rationale for relevant stakeholders in your institution in which you argue for or against **you** teaching **your** subject through English. Consider which position you have and the form your rationale would take that reflects your position in the university and the likely context in which you would have to produce such a rationale. It could be, for example, a PowerPoint presentation for a departmental meeting or simply the notes that you would make in preparation for a meeting with peers.

Task:
Reflect on the scenario and respond to the following prompts. The answers to the personal relevance questions throughout the unit should be of help in doing this.

1. Identify Possible Reasons:
List at least three reasons why your subject should be taught in English. Consider:
- The international aspects of your subject
- The benefits for the students
- The benefits for the university
- The benefits for you

2. Identify Possible Objections:
List at least three objections you may have to overcome. Consider:
- Objections from colleagues
- Objections from students
- Objections from your university

3. Propose Next Steps:
For each objection listed above, think about how you might **address or reduce** the concern.
- What **strategies, scaffolds,** or **supports** can you use to help students succeed?
- How can you **communicate the benefits** of this approach to sceptical stakeholders?
- Are there **training or collaboration** opportunities that could help?

4. Peer Discussion:
Upload to [the respective folder in the shared courseroom] your rationale in the form you have chosen. Look at the rationale produced by **one** other participant. On the forum provided, post comments, e.g., similarities and differences in your contexts, experiences and ideas, learnings from what they have written.

To prepare participants for the authentic task and support their learning, we presented a series of attitudinal statements related to EMI immediately after introducing the task at the

beginning of Unit 1. These prompts are meant to trigger predictions ('assumptions') about the participants' positions towards the content of the unit *before* engaging with the learning materials. For example, when introducing various definitions of EMI and the role of English in EMI versus other instructional models (e.g., Content-Based Instruction), learners are asked to reflect on statements such as "When I teach my subject through English, the students' English language development is not my concern." They are also asked to consider reasons why EMI courses may be offered and why there has been such a growth in this offer in the last number of years by responding to statements such as:

- Teaching courses through English is of value to my institution.
- Teaching my course through English is of value to my students.

These statements aim to prepare participants to be more receptive and reactive to the material presented, emphasising the learner as an active agent (Chaudron, 1985; generally, Fauth & Leuders, 2018). The predictive activity, in this context, seeks to identify the participants' initial perception of the topics (assumption formation), which they can compare with the subsequent content and then integrate into an evolved understanding that is more likely to be retained in their long-term memory (e.g., Nückles & Wittwer, 2014).

Checking questions at the end of each of the four parts were included to encourage the movement from input to uptake and to check whether participants understand (and remember) the content. True/False, Multiple Choice, and Multiple Matching items were to reinforce the key points of the input as well as opportunities for participants to double-check their own (not) understanding and respective further learning needs. Open-ended short-answer questions were tested during the development but were rejected due to technical challenges.

Thus, the lifecycle of Unit 1 can be represented as follows:

1. **Introduction of Authentic Task**
   Participants are briefly invited to familiarise themselves with the final task at the outset of Unit 1.
2. **Assumption Formation**
   Learners begin by predicting their own stance on teaching their subject through English, including different perspectives.
3. **Engagement with Content**
   They engage with materials on EMI history, European developments, policy debates, and arguments for/against EMI.
4. **Professional Relevance Prompts**
   Learners connect content to their institutional context and disciplinary identity.
5. **Revisiting Assumptions**
   Reflection prompts require re-evaluation of initial beliefs.

6. **Carrying out Authentic Task**
   Learners produce a stakeholder-oriented rationale in which they defend a position on adopting EMI in their context.

To ensure coherent development of all units, a guide was created based on Unit 1 to provide *orientation* (why do we create learning environments in the way exemplified in the development of Unit 1?), *application* (how can we implement theoretical principles in practice?) and *transfer* (how can we develop new learning environments based on the same principles?).

Conclusion

This chapter has presented the design and theoretical grounding of a six-unit e-learning course aimed at supporting teachers engaged in English-Medium Instruction in higher education. Drawing on a dialogic pedagogical framework, principles of culturally responsive teaching, and established (multimedia) learning theories, the project sought to translate long-standing face-to-face EMI training into a scalable, flexible, and accessible digital format. By outlining the conceptual foundations, macro- and micro-design decisions, and the central role of authentic, reflective tasks, the paper demonstrates how the units foster deeper professional awareness, dialogic sensitivity, and pedagogical adaptability. Unit 1, presented in greater detail for illustration, was used as a prototype that provides a coherent structural model shaping all subsequent units. The chapter contributes a practically applicable, theoretically robust model for EMI professional development in an e-learning context at a time when internationalisation places increasing demands on teachers' pedagogical competences for plurilingual environments.

Further research should systematically evaluate the effectiveness of the e-learning offer. A mixed-methods design combining pre-/post-measures of teacher self-efficacy and plurilingual awareness with learning analytics and targeted qualitative interviews would capture both learning gains and user experience. Longitudinal follow-up, involving classroom observations, could assess the transfer of learning into practice and guide iterative refinement of the course.

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11. Engineering Through English: Preparing Engineering Faculty for English-Medium Education

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Abstract: In Brazil, English-Medium Education (EME) remains relatively recent and unevenly distributed, creating capacity gaps—particularly in professional fields such as engineering, where faculty often have limited preparation for student-centered pedagogy and for the specific demands of teaching through an additional language. This paper reports a faculty-development experience designed for the Environmental Engineering Graduate Program (PEA) at the Federal University of Rio de Janeiro (UFRJ), in response to CAPES-driven internationalization goals. The program comprised 40 hours delivered in two ten-week online modules and combined active-learning methodologies with guided reflection to support EME course planning and assessment redesign. To ensure coherence between aims, pedagogy, and expected teaching practices, the course design drew on loop input and on one of the authors' 4W approach (Welcome, Warm up, Work out, Wrap up) as a structured yet adaptable framework for organizing interaction, scaffolding comprehension, and foregrounding metacognitive consolidation. We outline the program structure, present its theoretical background, exemplify one workshop lesson, and present a course proposal produced as an outcome of the training ("Ecology Applied to Industry"), including learning outcomes, assessment design, and sample class plans. We argue that promoting EME in engineering is less a matter of language substitution than of pedagogical recalibration. Through intentional instructional design integrating linguistic mediation, active methodologies, inclusive assessment, and strategic internationalization, EME can foster operational bilingualism, widen participation, and connect local expertise to global academic conversations.

Keywords: English-Medium Education (EME), Internationalization at Home, Faculty Development, Engineering Education, Active Learning, Linguistic Inclusion (OLME).

> "We can instigate *people* to be bilinguals not for the sake of language, but for the sake of *people*."
> Iowan Bowen Ries, 1995.

> "Internationalization is the intentional process of integrating an international, intercultural or global dimension into the purpose, functions, and delivery of post-secondary education, in order to **enhance the quality of education and research for all students and staff and to make a meaningful contribution to society."** [author's emphasis]." (De Wit et al, 2015)

Part I

On the Context of the Project

English has become one of the central resources for international academic communication. Its use broadens higher education institutions' capacity to engage internationally by supporting the participation of students and faculty from different linguistic backgrounds while strengthening

internationalization at home. Within this context, English-Medium Education (EME) has emerged as an important strategy for integrating international, intercultural, and disciplinary dimensions into higher education. We adopt the term EME, rather than English-Medium Instruction (EMI), following Dafouz and Smit (2020), because it foregrounds education as a broader pedagogical process encompassing disciplinary learning, interaction, and multilingual meaning-making, rather than focusing solely on English as the language of instruction.

Beyond facilitating communication, teaching and learning through an additional language may promote more complex cognitive processes (Antoniou, 2019) while challenging the traditionally elitist view of English in academic settings. In this perspective, English is understood as a resource for international communication rather than a marker of native-speaker competence. Accordingly, the program adopted an English as a Lingua Franca (ELF) orientation, prioritizing intelligibility, strategic communication, and multimodal support over adherence to native-speaker norms (Jenkins, 2015). Pedagogical practices such as reformulation, visual reinforcement, structured redundancy, and negotiated clarification were explicitly modeled to demonstrate how linguistic diversity can coexist with disciplinary rigor.

Although EME has long been established in many non-Anglophone European universities, its expansion in Brazil is relatively recent and largely driven by internationalization policies. National funding and evaluation mechanisms - particularly those coordinated by CAPES (Coordination for the Improvement of Higher Education Personnel) - have encouraged universities to internationalize curricula, research, and graduate education through initiatives such as EME, Other Languages as a Medium of Education (OLME), joint degrees, and internationalization-at-home strategies. While these policies have broadened opportunities for academic exchange, English proficiency and experience with EME remain concentrated among a relatively small proportion of faculty.

This situation is particularly evident in professional fields such as engineering. Although engineering faculty possess strong disciplinary expertise, many have received little formal preparation for student-centered pedagogy and even less for the specific demands of teaching through English. Without targeted faculty development, EME risks reproducing traditional lecture-based practices rather than fostering interaction, multilingual participation, and inclusive assessment. Addressing this gap requires educational initiatives that integrate pedagogical design, language mediation, and assessment practices.

In 2021, the coordination of the Environmental Engineering Graduate Program (PEA) at the Federal University of Rio de Janeiro (UFRJ) - a CAPES grade-7 program participating in a major national internationalization initiative - commissioned the design and implementation of a faculty development program. Beyond strengthening ELF, the program sought to support pedagogical innovation through active-learning methodologies, assessment redesign, and the meaningful integration of digital technologies into graduate teaching. Four competencies guided its design:

1. Promote EME teaching practices grounded in participants' disciplinary and institutional contexts across face-to-face, hybrid, and online settings.

2. Foster critical reflection on teaching practices.
3. Develop metacognitive awareness through participants' lived experience of the methodologies employed during the program.
4. Strengthen student-centered teaching strategies.

Having outlined the institutional context, the rationale for the initiative, and the competencies guiding its design, we now present the structure of the faculty development program, the pedagogical principles underpinning it, an illustrative lesson, and a course proposal developed by one participant as evidence of pedagogical transfer.

On the Goals of the Development Program

In order to achieve the goals outlined above, we designed a 40-hour capacity-building program for professors at the UFRJ's Environmental Engineering Department, delivered in two 10-week modules (20 hours each). Participants were expected to self-declare a minimum B1 proficiency (CEFR, 2001). The two modules devised focused on (1) learning through interaction and (2) preparation for implementation.

(1) Module I: Developing EME Practice

This module aimed to develop EME practice by adopting active methodologies and exercising the use of English for teaching in each engineering educator's disciplinary area. It addressed didactic strategies and the development of materials for lesson planning, and focused on four competencies aforementioned:

1. Implementation of context-responsive EME across in-person, online, and hybrid formats.
2. Reinforcement of evidence-informed reflection on instructional decisions.
3. Enhancement of metacognitive awareness through hands-on use and debriefing of course methodologies.
4. Promotion of student-centered teaching strategies.

To reach such goals, we devised the following syllabus:

- Teaching through EME
- Strategies for addressing linguistic demands across different practice contexts
- Interactive (online) practices
- Approaches to facilitate comprehension
- Ways to access learners' prior knowledge
- Techniques and tools for knowledge systematization
- Working with academic texts interactively
- Alternatives for managing online cohorts
- Lesson organization using the 4W approach
- Ways to introduce new content

- Opening and closing academic activities
- Assessment alternatives

(2) Module II: Preparing for Implementation

This module revisited core EME concepts/methodologies to support course design, planning, and assessment, culminating in the development and presentation of a course syllabus in English to be implemented by participants in their home graduate program, and likewise focused on the development of another set of four competencies:

1. Collaboration and sharing of teaching experiences.
2. Interaction with peers and active engagement in the proposed activities.
3. Design and planning of academic activities in the additional language for graduate-level engineering, based on the demands and characteristics of one's teaching context.
4. Implementation of methodological innovations in graduate teaching.

In pursuit of these aims, we crafted the syllabus below:

- Applied knowledge of Module I
- Planning and sharing of an academic activity
- Critical analysis of participants' methodological choices

Looking back at the educational route we pursued, contemporary knowledge is increasingly open to change and challenge, as societal needs are dynamic and demand original applications of expertise. Academic learning opportunities are therefore crucial for acquiring interactional skills that support innovation and adaptability. In this light, university teaching methodologies have emphasized the pivotal role of students as primary agents in their own learning and the indispensable role of instructors as organizers and mediators of learning environments capable of promoting that centrality (Waite, Curzon, Marsh, et al., 2018). For that reason, the faculty development program presented here was meant to offer participating professors opportunities for practice and reflection on fundamental principles for teaching a range of engineering disciplines through the medium of English. The guiding principles centered on building communicative and methodological strategies to deliver effective graduate teaching in EME, and to foster student bilingualism in higher education by using the language in authentic academic contexts. Incidentally, as applied linguists and language educators, it is an ideal for us that university teaching can prove itself a venue to consolidate language use, above all for those who didn't have a chance to experience it any sooner.

Accordingly, the modules in this engineering development program are organized as interactive workshops to articulate an epistemological rationale for adopting EME in graduate contexts, while encouraging the development of competencies for active, learner-centered practice. To meet these aims, we employed pedagogical activities grounded in experiencing the proposed methodologies and in metacognitive reflection on the practices implemented, as said, among other modes of collaborative engagement, to establish a contextual perspective that underpins the expansion of students' academic knowledge and the theoretical–methodological growth of instructors.

To conclude on the program goals, let us expand on why the principles referred matter. Engineering has discipline-specific discourse (procedures, constraints, trade-offs); clarifying core EME principles (clarity, redundancy, multimodal input, interaction) prevents “same lecture, now in English” and reduces cognitive overload. Along with that, language support without pedagogy is weak; pedagogy without language mediation excludes learners. Pairing discourse moves (e.g., signposting, reformulation, visuals) with active designs (problem-based learning, case clinics) boosts comprehension and engagement, and encourages the nuanced argumentation, critique, and research writing that graduate seminars require. Using English to do real engineering tasks (design specs, lab reports, pitches) represents targeted EME practices, which as such develop operational bilingualism — not just test skills — improving employability, mobility, and access to global knowledge. We could also add that rapid tech and regulatory change, as expected from contemporary engineering professionals and/or researchers, demand graduates (and faculty) who can learn, unlearn, and transfer. Active, EME-aligned designs cultivate agility: students iterate, justify choices, and adapt to diverse audiences, and learner agency correlates with persistence and deeper learning. Making students plan, monitor, and evaluate their work (e.g., learning contracts, self-assessment rubrics) builds autonomy essential for research and professional life. About educators, in EME, teachers orchestrate language, content, and interaction. When instructors plan participation structures, language aims, and feedback cycles, they lower barriers and widen participation—especially for quieter or multilingual students. Faculty, for their part, learn best by doing. Experiencing the same active methods (jigsaw, think-pair-share, design sprints) they will use in class accelerates transfer to practice and surfaces practical constraints early. Finally, reflecting on *why* a method worked (or did not) helps faculty fine-tune designs for their contexts. Structured reflection (prompted debriefs, teaching journals, peer observation) turns one-off techniques into sustainable habits.

On the Course Structure

The faculty development program was structured as two sequential twenty-hour online modules. The first module introduced foundational concepts and pedagogical practices related to EME, while the second module emphasized application, inviting participants to revisit core principles and engage in guided lesson planning, peer feedback, and mentored refinement of instructional designs. The example presented in the following section illustrates the type of pedagogical product generated by participants as an outcome of this process.

To ensure coherence between the program’s objectives and its pedagogical enactment, we adopted a teaching framework designed to be simultaneously structured and adaptable. This authorial framework[11], termed the 4-W approach, organizes each class session around four pedagogical movements. Each movement makes explicit the principles underlying both

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the development program and EME more broadly, particularly the emphasis on experiential learning, student-centeredness, and metacognitive engagement.

The instructional design of the modules was further informed by the concept of loop input (Woodward, 1986, 2003), understood as the alignment between the content being taught and the pedagogical process through which it is delivered. In practice, participants experienced strategies such as fronting, scaffolding, and interactive reading as learners, analyzed them as educators, and subsequently incorporated them into their own lesson planning. This recursive alignment between content and pedagogy transformed abstract methodological concepts into lived pedagogical knowledge.

On The 4-W Approach

Positioning students at the center of the learning process is a core principle of EME and of contemporary higher education more broadly. Within this paradigm, instructors assume the role of designers and mediators of learning environments structured around active and experiential methodologies that foster student agency and engagement (Waite et al., 2018).

The 4-W approach, inspired on Kolb's Experiential Learning Cycle (1984) and on Dewey's (1938) experiential learning principles, was conceived as both a "mnemonic" and a practical planning tool to support this orientation in concrete instructional terms.

The Welcome Phase

Each session began with a (1) *Welcoming* phase. Beyond its apparent simplicity, welcoming serves a cognitive and relational function: it facilitates the transition from external concerns to focused engagement, foregrounding attention as a prerequisite for perception and retention (Brown & Manogue, 2001). It also contributes to the development of social connectedness, increasingly recognized as central to well-being and learning (Liao & Weng, 2018). From an andragogical perspective, welcoming practices resonate with Knowles' emphasis on respect, trust, and collaboration as conditions for adult learning, as well as with Carl Rogers' view that psychologically safe environments stimulate intrinsic motivation (Dong et al., 2021). Welcoming moments included brief multimodal prompts - such as music excerpts that participants related to their current state, or images of nature which reflected their mood for the day - which opened space for connection and set an inclusive tone for subsequent work. Such practices strengthened the sense of learning community and supported the reflective interaction necessary for deep learning.

The Warming Up Phase

The (2) *Warming up* phase activated prior knowledge. Following the initial movement, the warm up stage makes prior understanding visible. Drawing on Ausubel's (1968) assertion that

meaningful learning depends fundamentally on what the learner already knows, this stage sought to surface participants' existing conceptual frameworks and connect them to new content. Activities included interactive quizzes on key EME concepts and collaborative questioning via digital platforms, enabling participants to articulate uncertainties and assumptions. In doing so, warming up functioned both diagnostically and metacognitively, making visible the relationship between stored knowledge and emerging understanding.

The Working Out Phase

The (3) *Working out* phase constituted the core exploratory moment of each session. While participants maintained an active role throughout, this stage engaged them in more sustained tasks requiring analysis, discussion, synthesis, and design. Drawing implicitly on higher-order cognitive processes as described in revised Bloom's Taxonomy (Krathwohl, 2002), *working out* activities invited participants to interrogate theoretical texts, examine case studies, contrast new concepts with their disciplinary realities, and collaboratively construct pedagogical alternatives. For instance, participants were assigned different sections of a text on EME principles in breakout groups, tasked with identifying key arguments and responding to guiding questions before reconvening to share and integrate insights. Through this structure, knowledge was co-constructed rather than transmitted.

The Wrapping Up Phase

Finally, the (4) *Wrapping up* phase foregrounded metacognitive consolidation. While each instructional phase incorporated brief moments of closure, the concluding stage explicitly invited participants to reflect on both the content and the process. In experiential learning theory (Kolb, 1984; Kolb & Kolb, 2012), reflection is the mechanism through which experience becomes learning. Accordingly, participants were prompted to analyze not only what had been discussed but how the 4-W structure itself contributed to learning. Typical activities included guided debriefing questions and concise synthesis tasks - such as identifying a key takeaway in a shared digital space - thereby encouraging participants to articulate meaning and internalize principles.

Through the consistent and reflective enactment of these four movements, the program aimed to provide participants with a transferable pedagogical framework. More than a procedural sequence, the 4-W approach embodies the epistemological commitments underpinning the initiative: alignment between language and content, intentional design of interaction, and the cultivation of learner autonomy within EME contexts.

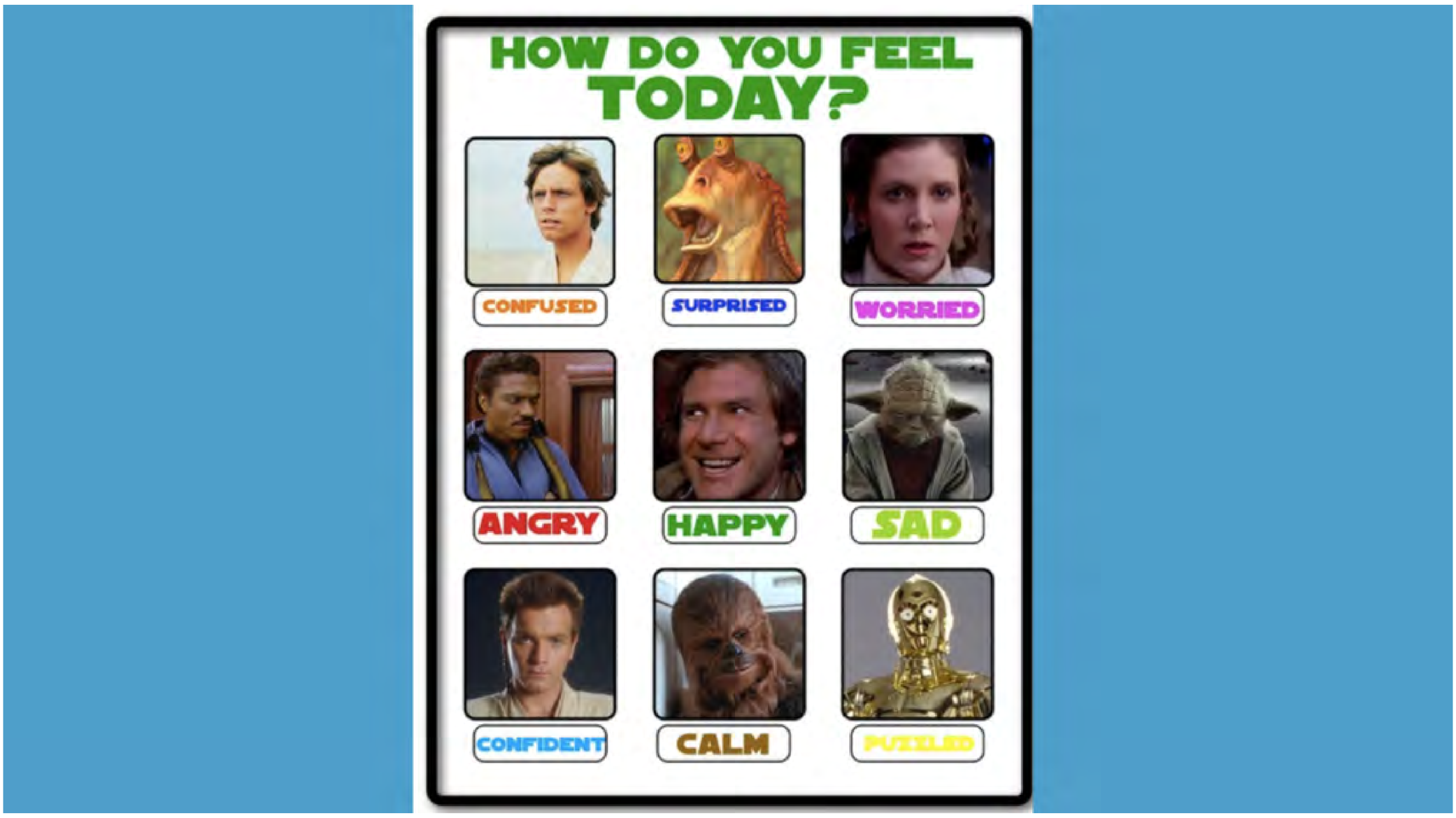
Equity considerations were embedded within this framework. Participation structures were deliberately varied (individual reflection, pair discussion, breakout rooms, plenary synthesis) to distribute voice and reduce anxiety in multilingual settings. These design choices reinforced the understanding of EME as a tool for widening participation rather than narrowing it.

On a Course Lesson

Sample Lesson: Enacting the 4-W Framework

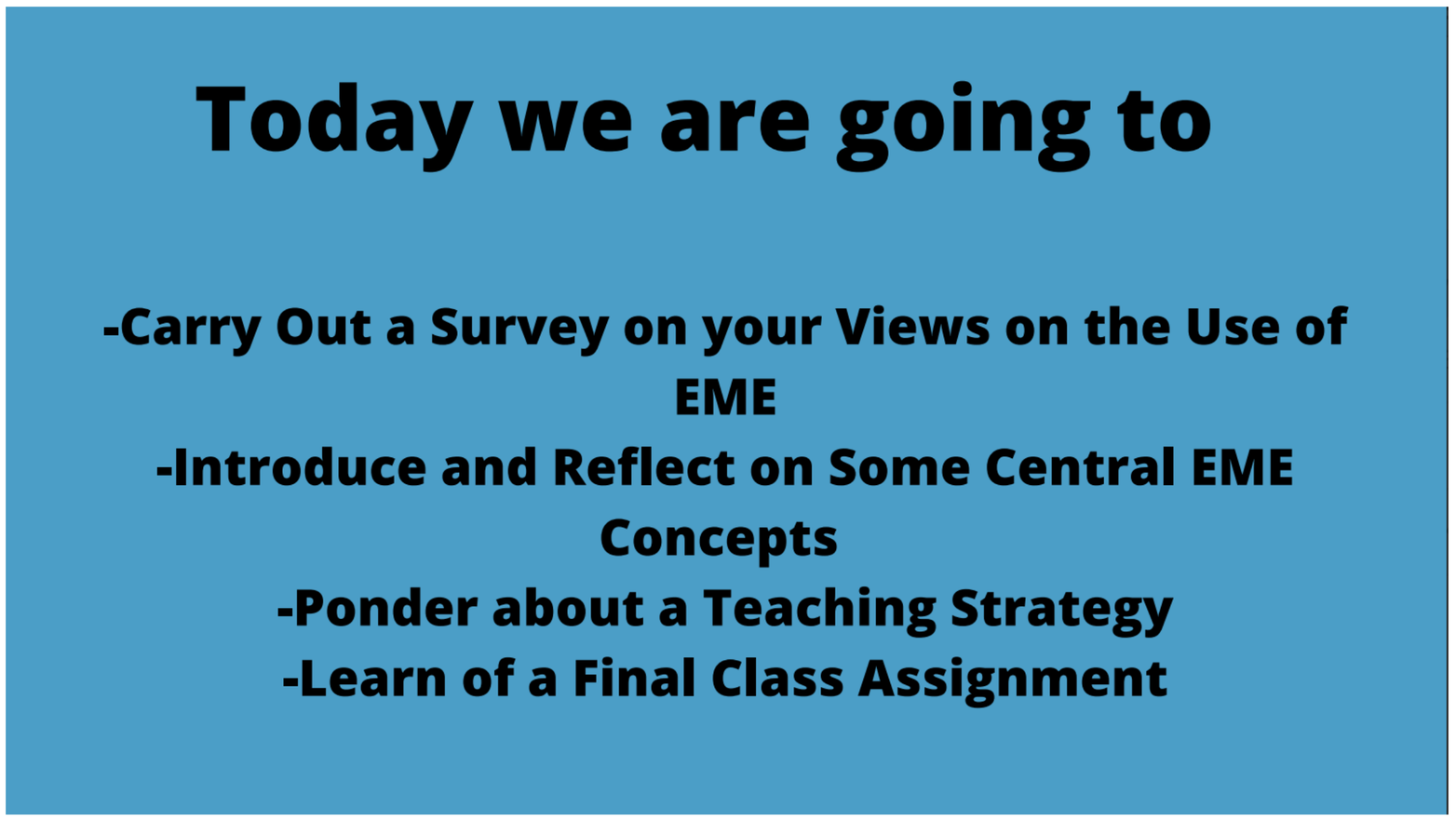
The lesson presented below illustrates how the four pedagogical movements previously described were operationalized in practice. As the second session in the course sequence, its primary objective was twofold: to introduce central concepts related to EME and to begin making participants explicitly aware of the structural moves framing each class encounter. The session opened with a *Welcoming* activity that invited participants to relate to images representing different emotional states. By selecting and commenting on images that resonated with their current mood, participants were encouraged to establish connection and presence. This brief exchange - marked by moments of shared recognition and humor - functioned not merely as an icebreaker, but as an intentional strategy to build partnership and set the class mood.

Figure 1. Welcoming Participants



Following this initial interaction, the goals of the class were presented, thereby making expectations explicit and aligning participants' attention with the proposed learning trajectory.

Figure 2. Class Learning Trajectory.

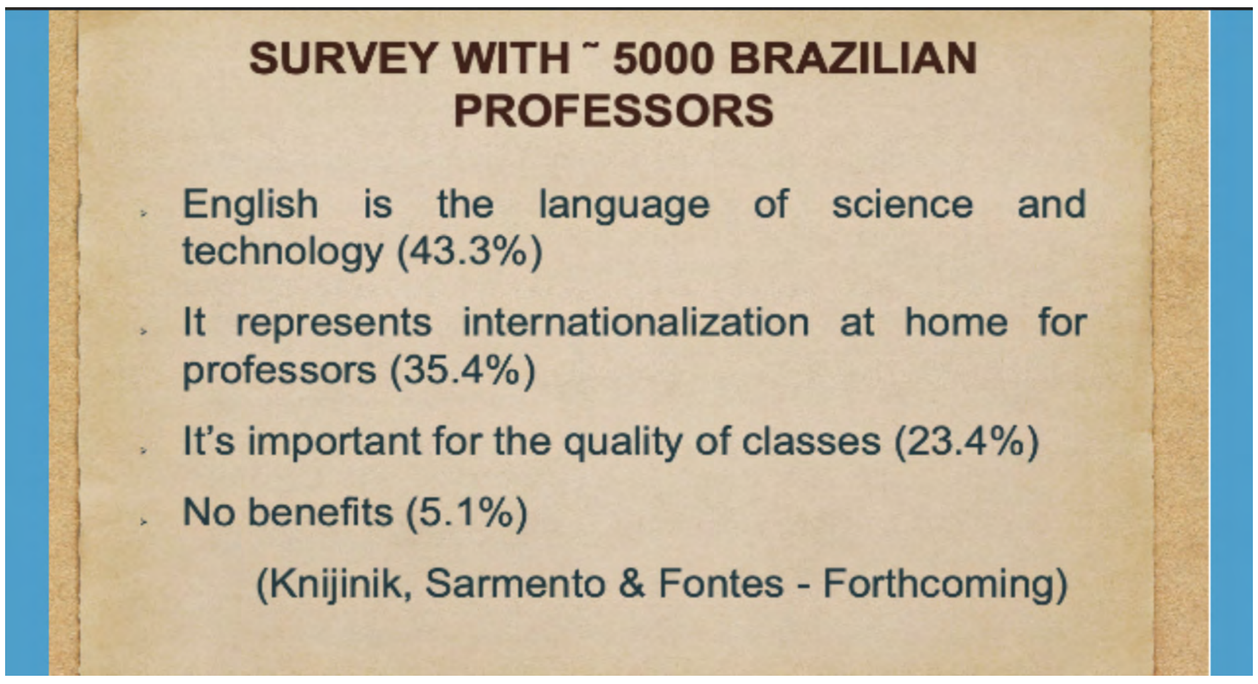


The *Warming up* phase then focused on eliciting prior knowledge about EME and surfacing perceived challenges associated with its implementation. To this end, an interactive Kahoot survey was conducted, featuring questions addressing foundational aspects of EME in Brazil, such as what characterizes it, reasons for its implementation in the national context, and who benefits from its practice in Brazilian universities. Beyond its diagnostic function, the activity encouraged participants to articulate assumptions and recognize the contours of their existing understanding.

Figure 3. Survey.

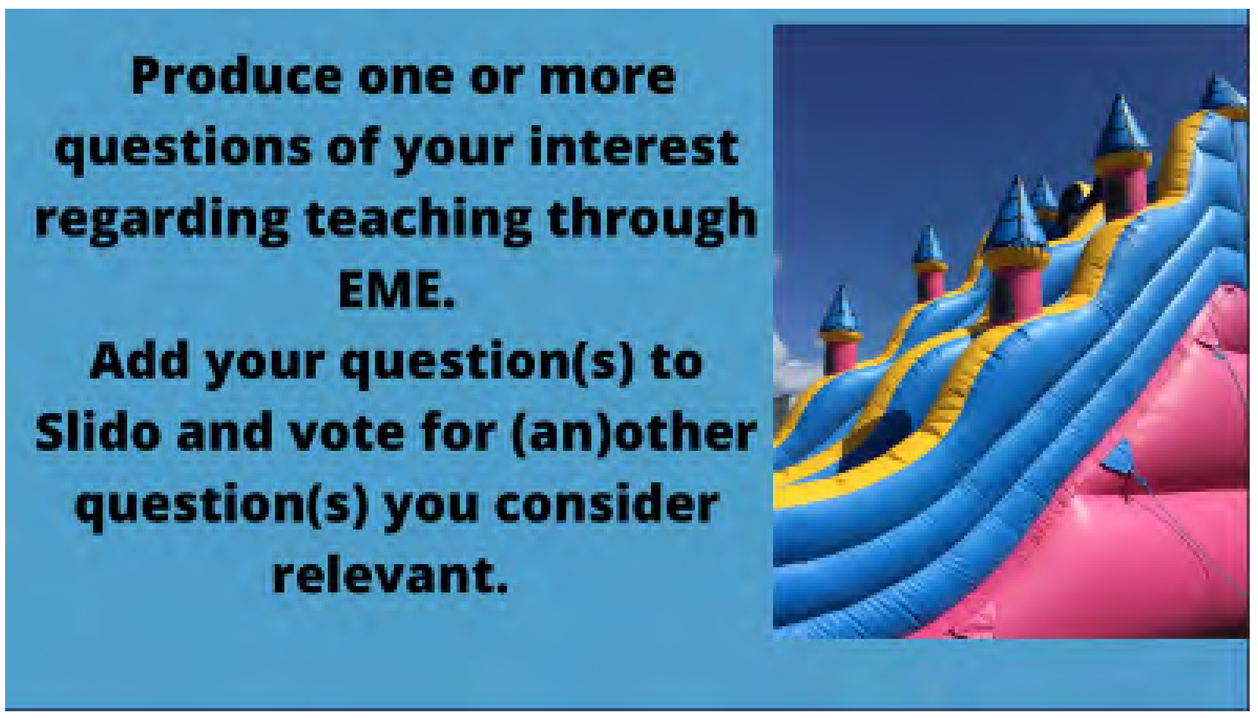
To deepen and substantiate the issues that emerged during this exchange, the instructors subsequently foregrounded selected research findings and additional arguments supporting the implementation of EME. This movement from experiential recall to research-informed framing reinforced the connection between practice and theory, situating participants' reflections within a broader scholarly conversation.

Figure 4. Selected Research Findings.



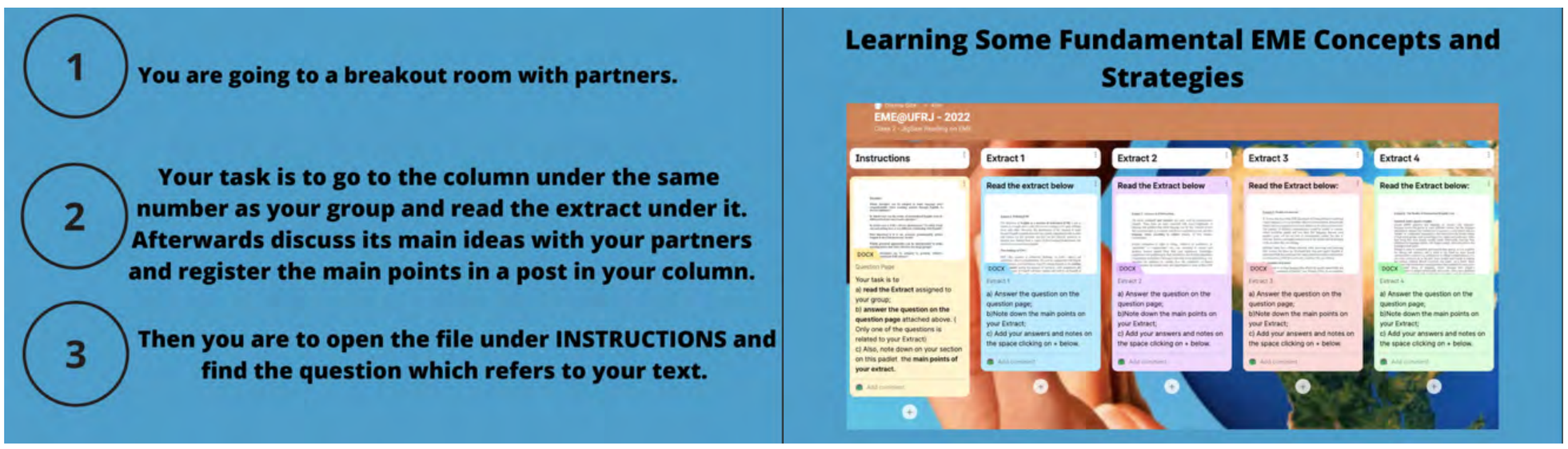
Participants then formulated questions about EME using the shared platform Slido, drawing on their existing knowledge to articulate uncertainties and curiosities. These questions later served as material for collective analysis.

Figure 5. Formulating Questions.



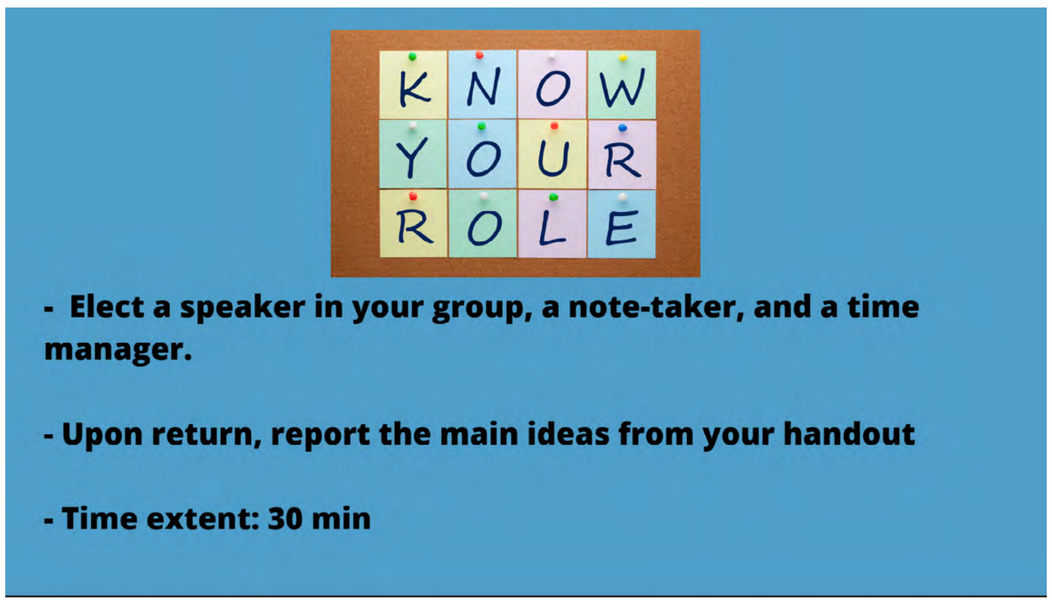
During the Working out phase, participants worked in breakout rooms on different sections of an article addressing key EME principles. Working in online breakout rooms, interactants analyzed different sections of an academic article on key EME principles, discussed guiding questions, and shared their findings with the whole class.

Figure 6. Working Out Phase.



The application of newly consolidated knowledge took place when the questions previously posted on Slido were revisited during the plenary sharing session. Teachers responded to one another's questions in light of the theoretical input explored during the breakout discussions, creating a brief accountability checkpoint before collective synthesis.

Figure 7. Task Instructions.

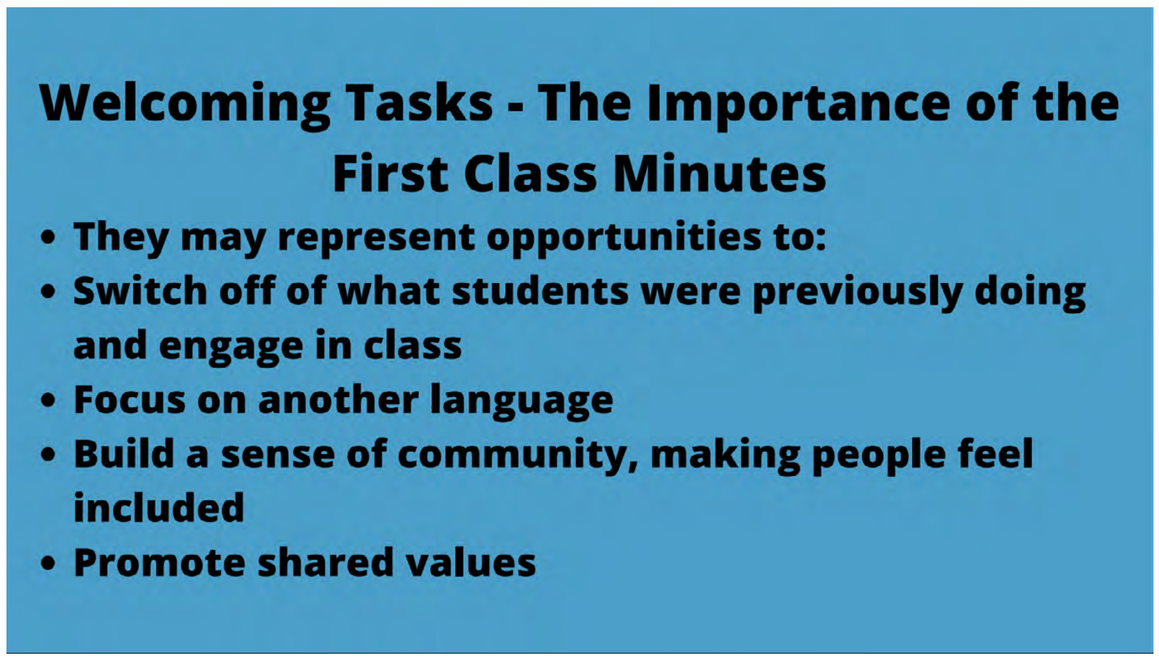


Because one goal of the course was to familiarize educators with the 4-W approach as a transferable planning framework, the Wrapping up phase centered on the first movement—Welcoming. Participants reflected on the pedagogical rationale of the opening activity.

Figure 8. Wrapping Up Phase.

After eliciting interactants' interpretations, the instructors supplemented the discussion with additional considerations to reinforce the pedagogical relevance of the *Welcoming* phase. In doing so, the class not only concluded its thematic exploration of EME principles, but also engaged in explicit meta-analysis of instructional design.

Figure 9. Additional Considerations.



Following homework assignment, as a regular metacognitive class procedure, all the technological resources employed along the class were listed so as to make educators aware of the multiple ways technology could be employed to promote varied interactional arrangements and more equitable participation.

Figure 10. Listing Technological Resources Employed.

As a final reflective prompt, participants were asked to articulate what had most captured their attention throughout the class. This closing reflection served a dual purpose: expanding teachers' pedagogical repertoire and sharpening their awareness of learning processes; generating formative feedback for instructors, informing the planning of subsequent sessions.

Figure 11. Wrapping Up.

Through this structured yet flexible sequence, the lesson exemplified how the 4-W framework integrates experiential engagement, theoretical grounding, collaborative inquiry, and metacognitive consolidation within a coherent EME-oriented design.

Final Words

Revisiting the initial goals of the project allows us to assess how the proposed competencies were conceptualized and enacted throughout the program. The faculty development initiative was designed to respond to a policy-driven moment of internationalization while preserving a pedagogical commitment to equity, reflection, and methodological intentionality.

First, the adoption of ELF as the working language of the program and the preparation of curriculum-internationalization courses in ELF at both the Professional Master's and Doctor of Science levels marked a concrete shift from mobility-centered internationalization toward embedded, sustained academic exchange. Rather than treating English as an external requirement, the program positioned it as a functional academic tool integrated into disciplinary practice.

Second, the explicit incorporation of active learning methodologies - including interactive lecturing principles (Barkley & Major, 2018), collaborative problem-solving, and experiential lesson staging through the 4-W framework - aligned pedagogical innovation with the broader aims of internationalization. This ensured that EME did not replicate transmissive lecture models in another language but instead supported participatory and dialogical learning environments.

Third, the initiative functioned as a structured process of EME faculty development, combining epistemological grounding with practical experimentation. By experiencing and analyzing active methodologies through loop input, participants engaged in the same learner-centered processes they were expected to enact in their own courses, reinforcing coherence between theory and practice.

Fourth, the emphasis on digital transformation responded directly to contemporary demands for flexible, resilient higher education. Training in digital tools supported Internationalization at a Distance while strengthening teaching, research collaboration, and outreach capacities (cf. Mittelmeier et al., 2021). Rather than viewing technology as merely instrumental, the program framed it as a mediator of interaction and inclusion.

Finally, these pedagogical and linguistic transformations contributed to the strategic positioning of the Environmental Engineering Program within global academic networks, aligning its international profile with the United Nations Sustainable Development Goals (SDGs). In doing so, the initiative reinforced the idea that internationalization is not an end in itself, but a means of enhancing the social relevance and global responsibility of engineering education.

Taken together, the experience described here suggests that promoting EME in engineering is less about language substitution and more about pedagogical recalibration. When linguistic

mediation, active methodologies, and strategic internationalization converge, EME can function not as a symbolic marker of globality, but as a substantive instrument for expanding participation, strengthening academic dialogue, and cultivating operational bilingualism in professional contexts.

In this sense, engineering through English becomes not merely an exercise in language use, but a deliberate act of educational design - one that connects local expertise to global conversations while preserving contextual responsiveness and learner agency.

The course proposal presented next represents evidence of pedagogical transfer. Developed as an outcome of the faculty development program, it reflects participants' application of active-learning principles, alignment between learning outcomes and assessment, and structured interaction through English as the working language. Rather than serving as an isolated syllabus example, it illustrates how methodological reflection translated into concrete curricular redesign.

Part II

On a Course Proposed as Outcome of the Educational Program

The Environmental Engineering Program at the Federal University of Rio de Janeiro began in 2008 and has since grown, always seeking alignment with the guidelines of CAPES. In this context, the program has pursued internationalization, which involves integration with research groups and students from numerous countries. In recent years, professors have sought to adapt some courses to the online format, with synchronous classes in English. For the success of this initiative, it is essential to invest in the continuing education of lecturers (Oliveira & Santiago, 2023), so that they can take ownership of innovations in digital information and communication technologies (DICT) that drive teaching. It is also indispensable to implement changes in teaching practices within this new learning context (Bacich & Moran, 2018; Debald, 2020), so that educators are prepared to guide students in developing new competencies and skills (Rufino et al., 2024), as well as a sense of responsibility, independence, proactivity, and ethics (Bacich & Moran, 2018).

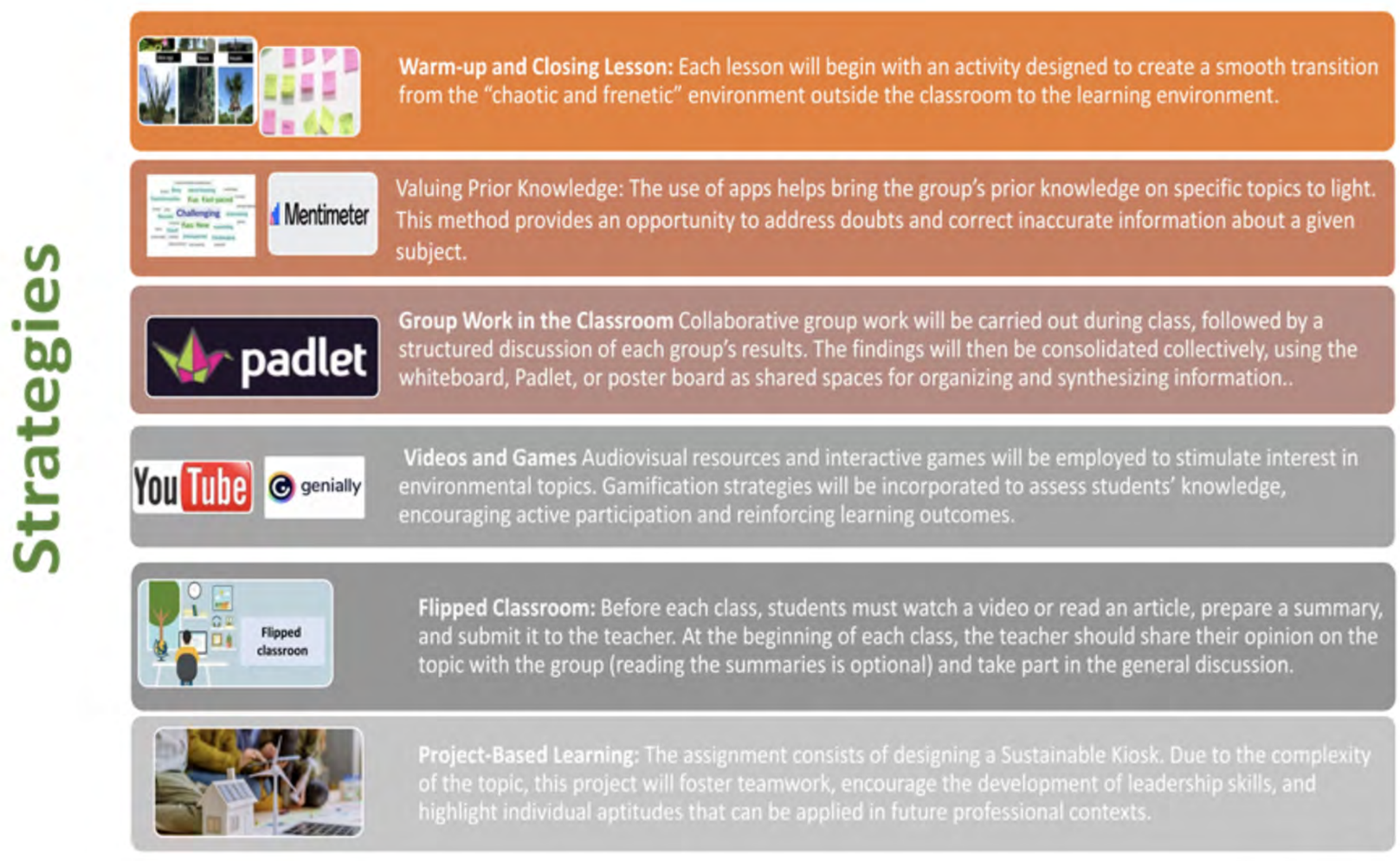
In 2022, the course *Academic Communication Without Borders: English Medium Education to Bridge Internationalization Gaps* enabled the training of faculty members and graduate students in the design of courses that incorporated various aspects of active teaching methodologies, including the use of digital platforms (e.g., Padlet, Mentimeter, Kahoot, among others).

The course outlined below stems from the capacity building program referred to above and prepares Environmental Engineers to recognize, understand, and engage with natural systems and their interactions with industrial systems. At the same time, it provides concepts and foundational knowledge that can be applied in daily practice and that, undoubtedly, intersect with the vast majority of the content covered in the Environmental Engineering curriculum. Mastery of applied ecological concepts will grant Environmental Engineers greater confidence and credibility when addressing environmental issues within multidisciplinary teams. The course has been

adapted to be delivered in English, in an online format, and employing active methodologies in all sessions. The proposal is described below.

Course General Plan
Target Group: Graduate student
Course Identification: Ecology applied to industry
Time: 45 hours (3 hours per week)
Platform: Moodle
Contents: Unifying concepts in ecology; Organization of natural systems; Populations and communities; Attributes of natural systems (adaptation, resistance, resilience, connectivity); Factors affecting diversity; Estimation of richness and biodiversity; Identification of species groups; Eco-efficient enterprises; Industrial pollution and the environment; Case studies.
Resources needed: computer, internet access, understanding of Moodle Platform.
Metodology: The Virtual Learning Environment (VLE), based on the Moodle platform (available at UFRJ), will be employed to support online activities (including video links, PDFs, games, tests, etc.). Below is a summary of the strategies implemented (Figure 1).

Figure 12. Illustration of the strategies employed throughout the course.



Competences: Based on Bloom's adapted Taxonomy (Ferraz & Belhot, 2010), which classifies learning through a hierarchical structure of educational objectives, and with the aim of fostering competence development (Fleury & Fleury, 2001), this course expects students to:

- **Describe** the main ecological concepts and understand their application in everyday contexts (*remember and understand*).
- **Apply** the acquired knowledge by using these concepts in different aspects of their professional activities.

- **Analyze** news and reports critically in light of the knowledge gained.
- **Evaluate** by learning to prioritize vulnerable groups and identify the key factors to be considered when assessing biodiversity loss or estimating environmental characteristics in practice.
- **Create** a video addressing the aspects and impacts of their professional activities, grounded in the concepts learned.

Assessment:

- After each class, students will watch a video or read an article, prepare a summary, and submit it to the instructor.
- At the beginning of each class, students will present their opinions on the topic to the group and participate in the ensuing debate.
- Students will select a theme and deliver a presentation to the class.
- Students will create a video addressing the aspects and impacts of their professional activities, based on the concepts learned (final outcome: video).

Evaluation

Formative, systematic, and periodic. Participation in the activities is mandatory, serving as one of the means through which students can demonstrate part of their knowledge. Weekly monitoring of the activities provides, in real time, an overview of how the strategies and learning processes are succeeding, offering both time and opportunity for possible adjustments by the instructor as well as by the students. Individual participation will be encouraged whenever possible, while respecting the characteristics of each student.

Appendix

Class Plan

All proposed activities were designed to cultivate leadership, foster creativity, and enhance the capacity to generate and conceptualize solutions to the environmental challenges confronting our society.

Part of Class	Procedures	Timing (minutes)	Online Resources/ Input Sources	Forms of Interaction
CLASS 1 - Different types of Ecology **Goals: Define Ecology and environment, compare the types of ecology, evaluate their behavior, and choose a type of ecology**				
Welcoming	Introduce myself and present the goals of the discipline and forms of assessments. What are your expectations for this course?	30 min 30 min	Conversation using Zoom	debate
Warming up	What do you work with and what does Ecology mean in your professional activity in one word?	20 min	Mentimeter: spiderweb	sharing interest and work affinities
Working out	The unifying concepts in ecology and different types of ecology.	60 min	Power point presentation	Questions
Wrapping up	Question: Which ecology do you have the most affinity for: natural; Social; conservationism or ecologism?	30 min	Assess the Kahoot and choose your answer	Discussion about the answers
Homework	Watch the video “The world without anyone” (https://www.youtube.com/watch?v=o7u0Xuq1Vi0) Write a review and comment on it in the next class. 10 minutes			
Comments	In this first class we would spend more time on welcoming them			
CLASS 2 - Brazilian Biomes **Goals: Recognize the Brazilian Biomes; outline the mean impacts on them; Compare their impacts**				
Welcoming	If you could be a plant, which one would you be?	20 min	Pictures of different species of plants	Choose a plant and explain why you like it?
Warming up	Reviews of the movie “The world without anyone”. How did itchange the way you see the impact of mankind in the environment?	60 min	Conversation using Zoom	Online discussion
Working out	Lets get a preview ... Video “Brazilian Biomes¨ (*) Brazilian Biomes and the main environmental impacts on them. Teacher is going to make a small presentation about the biome before each group present the impacts. Anyone would like to talk about the biomes from other countries?	60 min 20 min	7 breakout rooms. Each group chooses a biome and list the environmental impacts it has suffered. Book ”Biomes and Biodiversity” (**) Zoon/power point	Make annotations on Padlet and present your results in the main roon. Do you recognize impacts that are common between the biomes?

Wrapping up	Is the biome in which your plant occurs threatened? Why?	20 min	Return the initial Picture and explain the biome, where it occurs and why it is endangered species	Online discussion
Homework	Read “Convention of biological Diversity“ (https://www.researchgate.net/publication/26610639_The_1992_United_Nations_Convention_on_Biological_DiversityConvention on Biological Diversity) Which is the role of Brazil? Prepare 1 page summary for next class.			
Comments	The initial figure with the plants represents the typical species of the different biomes. Show image			
*	(https://www.youtube. Com/watch?v=QQ3grsp-gmw)			
**	(http://www.brasilexperience.weebly.com/uploads/3/9/0/2/39029957/term_paper_biomes_and_biodiversity_(recovered).pdf)			

CLASS 3 - The organization of natural systems
Goals: Recognize the organization of the ecosystems around us and interpreted the impacts on the environment and their scale.

Welcoming	If you could be an animal, which one would you be? Why?	20 min	Pictures of different species of plants	choose an animal and explain why you like it
Warming up	commentary on Brazil’s position in relation to the Convention on Biological Diversity	30 min	Zoom	debate
Working out	Presentation about organization of natural systems Student should make a chart with the recovery time of natural systems.	60 min 40 min	Power point Breakout roons	Discuss the examples Compare the graphics
Wrapping up	Based on the explanation of the natural compartments. What trophic level does your animal occupy?	30 min	Return the initial picture	Explain its position to the class
Homework	Watch the video and read the article “Wolves of Yellowstone - How ecosystems can be shaped by predators”(https://www.youtube.com/watch?v=dVbC2oTnMIM) Build a diagram with the Yellowstone Park food chain and present a slide in the next class. 10 minutes			
Comments	Each animal is a symbol of the biome where it occurs			

CLASS 4 - Unifying concepts in Ecology
Goals: Distinguish the different concepts of Ecology

Welcoming	Which Brazilian fruit do you like most? (show pictures)	20 min	Pictures of different species of plants	Choose a fruit and explain why
Warming up	Yellowstone Park food chain reviews	30 min	Conversation using Zoom and Power point	Online discussion

Working out	Unifying concepts in Ecology	60 min	power point	Students may present examples of each concept
Wrapping up	Remember the fruit you like? Well... It is exotic!	20 min	Zoom/ Power point	show the fruit origin
Homework	Crossword with the unifying concepts (share Qrcode) 10 minutes			
CLASS 5 - Factors that affect biodiversity **Goals: Defend your choices of factors affecting the biodiversity and conjecture about the future of the environment in Brazil**				
Welcoming	When you think about the environment 50 years from now, which scenario do you believe is our future? Scenario 1 or 2?	20 min	Zoom/ Powerpoint	Two students explain the different options
Warming up	Video: Biodiversity loss" (https://www.britannica.com/explore/savingearth/biodiversity-loss/)	20 min	Zoom	Discussion
Working out	Factors that affect biodiversity	60 min	students work in pairs. Read the text and list the factors on Padlet	Explain/defend your choices
Wrapping up	Videos "Shall we do an exercise?" Can you commit today to just one action? Explain your choice.	30 min	Conversation using Zoom	Online discussion
Homework	Reading chapters from the book "Empresas Eco-eficientes. Distribution of the chapters among students. Make a powerpoint (15 minutes per presentation). Option: choose one article in your language (show it first to the teacher)			
CLASS 6 - Eco-efficient companies **Goals: Defend the dilemma presented and explain the eco-efficient examples studied**				
Welcoming	Choose a Picture that represents the company you work or would like to work	20 min	Zoom/ power point	Tell the class about your choice
Warming up	Tease question: If you were offered a position in an arm or cigar company environmentally friendly. Would you take it? Economy x Environment x Conscience?	30 min	Zoom	Discussion
Working out	Presentation of the chapters from the book "Eco-efficient companies" and other articles.	120 min	Zoom/ power point	Questions after each presentation

Wrapping up	In your work or home what could you do to make it more eco-efficient?	10 min	Zoom	Discussion about the students choice
Homework	Human impacts on biodiversity (https://www.youtube.com/watch?v=wXJiHr8jWBs&t=53s) The importance of determining species sensitivity to environmental change: a tree frog example (https://esajournals.onlinelibrary.wiley.com/doi/pdf/10.1002/ecs2.3526)			

CLASS 7 - Groups of species to be protected
Goals: Conjecture on the species that should be protected an defend your choices

Welcoming	Images of different ecosystems. Is there a more sensitive ecosystem?	30 min	Zoom / power point	Discussion
Warming up	Comments about the article “The importance of determining species sensitivity to environmental change: a tree frog example”	30 min	Zoom	Discussion
Working out	Working in pairs: Do you think that species are affected in different ways by environmental impacts? Discuss which group of species should be specially protected.	60 min 30 min	Breakout rooms Share your result on Padlet	Discussion Explain the groups you choose
Wrapping up	Teacher presentation on grouping the sensitive species	30 min	Zoom / power point	Discussion (everybody agrees with my choices?)
Homework	In pairs, choose a chapter from the book “Ecology of industrial pollution” and prepare a presentation (20 min) for the class			

CLASS 8 - Ecology of industrial pollution
Goals: Relate the pollution studied in the book with the Brazilian industry. Design a sustainable school.

Welcoming	Image of different environmental impacts.	20 min	Zoom/power point	none
Warming up	Which of the activities that cause a decrease in biodiversity do you consider the most serious? Choose from a list and justify	20 min	Padlet	discussion
Working out	Power point presentation (couples) of Book Chapters	120 min	Zoom / power point	After each presentation students may ask questions
Wrapping up	As a student of environmental engineering list what you could plan to make a single school sustainable. 5 groups discussion different aspects: water; heat; energy; organic waste; not organic waste.	30 min	Padlet	Discussion (did we miss anything)?

Homework	Read this very interesting text: “Composting toilet” (ttps://www.britannica.com/explore/savingearth/composting-toilet) Quizz: climate changes (https://www.britannica.com/explore/savingearth/test-your-knowledge__trashed/climate-change-quiz)			
CLASS 9 - Diversity and its measure **Goals: Use of the acknowledgment to understand and interpret their surroundings**				
Welcoming	What are your expectations about the future of Brazil? Choose one word from the image	20 min	Zoom/ Power point	discussion
Warming up	Tease question: How can we measure or compare diversity? Is there different kinds of diversity	30 min	Zoom breakout rooms / Padlet: Text about different kinds of diversity (alfa, beta and gama)	Discussion on the different forms to evaluate diversity.
Working out	Teacher presentation: “Diversity measures”. Protocol to be applied individually Activity: go to an outdoor garden and quantify the number of individuals of each species; calculate the indices.	30 min 70 min	Zoom / power point time to the student make the activity/ Padlet with the indices calculated by each student	Discussion on the student’s findings Observation of the class results
Wrapping up	discuss the result with the class. Does your location (country/state) influenced the results?	30 min	Zoom with all the class	Discussion about the different results
Homework	Article: “Habitat loss, extinction predictability and conservation efforts in the terrestrial ecoregions” (https://www.sciencedirect.com/science/article/pii/S0006320719315320Co.pdf)			
CLASS 10 - Aspects and Environmental Impacts **Goals: Create a video explain how your work/dissertation object impacts the environment**				
Welcoming	Define in 6 words the nature of your work or object of your study	30 min	*Padlet*	discussion
Warming up	Comments on the article “Habitat loss, extinction predictability and conservation efforts in the terrestrial ecoregions”. Does your professional activity generate environmental impacts? or Does the object you study impacts the environment?	30 min 30 min	Zoom	Each student explains to the class
Working out	Group work in the classroom: Aspects and impacts in the different sectors studied by students. Prepare a table to show the class	60 min	Breakout rooms	Presentation to each table

Wrapping up	List the positive and negative aspects of the course. Exit activity: in one word, how would you describe the experience with the discipline?	30 min	Put a *post it* on the wall in your way out	none
Homework	Final assessment: create a video (10min) about your work/dissertation theme and their impact on the environment. Upload the video on the Moodle platform (due in 15 days)			
Comments	Course evaluation: complete the evaluation form one GoogleForms			

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12. The Role of Academic Literacy in an EMI Teacher Training Course

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Abstract: This experience report aims to present some conclusions based on the practice of teaching an introductory English as a Medium of Instruction (EMI) course. It was taught at the Federal University of Mato Grosso do Sul (UFMS) for one week to some professors who desired to start teaching their graduate courses in English. The EMI course was planned according to some theoretical principles from two different areas: 1) EMI Teacher Education Literature (Dearden, 2014); and 2) Genre Theory (Swales, 1990). My objective was to show to those professors that their goal, as EMI instructors, was to design activities directed at the development of students' academic literacy. The most evident difficulties identified, as the instructor of that group, were: 1) The lack of professors' proficiency in English; 2) The lack of professors' knowledge about what a genre is. These conclusions suggest the need to include the topic of academic literacy in English in EMI teacher training courses.

Keywords: Academic Literacies, English as a Medium of Instruction (EMI), Teacher Training Course.

Introduction

This article presents reflections in an EMI (English as a Medium of Instruction) Teacher Training Course from the perspective of the course instructor. During this course, the objective was to present methodologies that could be used by content teachers who wanted to teach their graduate and undergraduate courses in English. The EMI Teacher Training Course that will be presented in this article took place at the Federal University of Mato Grosso do Sul over one week in December of 2024 (from December 9 to December 13). It was an introductory EMI course aimed at content teachers who have never taught a course in English. Besides presenting methodologies for teaching classes in English, this course aimed to discuss principles of Academic Literacies that were potentially suitable to guide the use of English for academic purposes in EMI lessons. The concept of genre proposed by Swales (1990) and the Academic Literacies framework proposed by Street and Lea (2006) were highly influential to the establishment of some discussions throughout the course.

In order to establish this discussion, the course syllabus will be presented and briefly discussed, considering some possible connections between the activities suggested to the content teachers enrolled at the course and the theoretical background mentioned. For ethical reasons, the focus will be directed only to the activities.

In rhetorical terms, this paper is divided into the following sections: 1) English Medium of Instruction (EMI); 2) Academic Literacies in EMI; 3) Methodology; 4) Activities Proposed in the Course; 5) Final Discussion. After these sections, the paper presents their references.

English as a Medium of Instruction and Emi Teacher Development in Brazil

"The practice of teaching academic graduate and undergraduate courses in English, in countries or jurisdictions in which English is not the first language" is a classical definition of the concept of English as a Medium of Instruction (EMI) coined by Macaro (2018, p. 37). This methodology is an alternative to internationalization at home and it has been notably growing more and more throughout the world in recent years.

However, there are many misconceptions about what EMI is (or is not) in theoretical and practical terms. Among the different possible misconceptions, there tend to be confusions between Content and Language Integrated Learning (CLIL) and English for Academic Purposes (EAP). These two approaches are examples of perspectives that connect in certain ways the English language and content from different areas. According to Airey (2016), the differences between EAP, EMI, and CLIL can be understood in terms of the relationship between language and content. It is different from EAP and EMI. The former focuses only on language, and the latter focuses on the content.

Considering this notable growth of EMI, Macaro suggests that EMI is like an unstoppable train. This metaphor illustrates the large number of professors all over the world who are adopting EMI in their courses. However, there is a clear disparity between countries where EMI already exists as a reality and other countries. In these other countries, EMI is just a promising methodology and strategy.

This disparity in the presence of EMI initiatives can be seen in the following example: In 2024, the "Routledge Handbook of English Medium Instruction in Higher Education" was published. This publication was divided into four parts. The first part is dedicated to presenting a theoretical background of the possible relationship between translanguaging and EMI. The second part presents studies conducted in non-English speaking European countries. Finally, the third and fourth parts present, respectively, studies conducted in Africa and Asia. The omission of South America was explained in the conclusion of the introductory section, where the authors argue that the study of EMI in the region is a recent academic activity.

It should be noted that one of the most relevant challenges for implementing EMI in Brazil is the process of EMI teacher development. There are no formal courses in Brazil that are designed to train teachers. Content teachers who aim to offer courses in EMI are usually prepared by English language teachers in isolated courses, who focus specifically on methodologies for teaching courses in English.

These English teachers are usually trained in EMI online courses. One of the organizations offering such opportunities is the Regional English Language Office (RELO) in Brazil. It plays an important role in terms of offering online English courses for Brazilians. This scenario of EMI and teacher development allows us to conclude that EMI education is still in its infancy in

the country. In the next section, the theoretical background from Academic Literacies will be discussed in order to present a possible component that can be added to the EMI framework.

Academic Literacies in EMI

The previous section was dedicated to presenting the concept of EMI, as a methodology aimed at supporting internationalization at home. In this chapter, the concept of Academic Literacies is presented as the theoretical framework that guided an EMI teacher training course. The concept of Academic Literacies was proposed by Street and Lea (2006) and it has been helping scholars and practitioners from different areas to reshape their curricula. The origins of Academic Literacies are linked to the emergence of New Literacy Studies. Some studies like Scollon and Scollon (1981) and Street (1984) contributed to the understanding of literacy practices as socially situated in cultural and historical contexts.

Before these studies, according to Gee (2012), there was a belief that literate people had developed more cognitive skills than those with limited literacy. After the emergence of New Literacy Studies, this “divide” was no longer central to the discussion again, because the focus shifted toward the elements situated in these literacy practices.

The concept of academic literacies proposed by Street and Lea (2006) contributed to the development of areas related to the teaching of scientific writing and reading. In general terms, this perspective argues that reading and writing should not be taught only in terms of skills that are necessary for academic needs. From this perspective, teaching should consider many other things besides these skills. The goal of lessons should be to offer conditions to engage students in an ecology of literacies. The main outcome expected from this perspective would be related to the possibility of dealing with aspects like power, identity,, and gender in an academic context.

Another important aspect related to academic literacies concerns how (academic) literacy reshapes the notion of language learning. According to Lemke (1998, p. 285):

> A literacy is always a literacy in some genre, and it must be defined with respect to the sign systems deployed, the material technologies involved, and the social contexts of production, circulation, and use of the particular genre. We can be literate in the genre of the scientific research report or the genre of the business presentation; in each case the specific literate skills and the relevant communicative communities are very different.

According to this view, genre is the fundamental element that organizes the learning process. The concept of genre presented in this quote matches the definition presented by Swales (1990), in aspects such as: rhetorical communication and a shared communicative purpose in a certain community.

In sum, academic literacies provide a theoretical framework that reshapes traditional views of language learning, because they state that learning is a matter of developing literacies in a specific genre. This notion represents an advance in terms of language learning frameworks, and the theoretical background of academic literacies supports this view.

In order to discuss the possible connection between the areas of English for Academic Purposes and Academic Literacies, it is important to highlight the importance that concepts like “English proficiency” and “English learning” play. For many enthusiasts, EMI can be only justified by the possibility of using language in a real context in order to develop language skills.

According to Macaro and Aizawa (2024), language proficiency is the second most discussed topic among EMI scholars. Although it can be recognized as an important aspect, focusing on language proficiency can create a misconception between EMI and other approaches like CLIL (Content and Language Integrated Learning), because the goal of EMI is not related to the process of learning a new language. The main goal of EMI is related to academic purposes.

In this vein, the theoretical background of Academic Literacies can guide EMI practitioners to avoid developing neutral or instrumental methodologies. The concepts of “language as a social practice” and the possible relations between the “genres” and “learning” are highly influential in reshaping the role of EMI classes in tertiary education.

Course overview

This EMI Teacher Training course was held in December of 2024 (from December 9 to December 13) at UFMS (Federal University of Mato Grosso do Sul). It was an introductory course directed to professors who intended to begin teaching graduate and undergraduate courses in English as the medium of instruction.

This course was offered by the AGINOVA (Institutional Internationalization Agency) as an alternative to increase internationalization at home initiatives. The author of this text was the course instructor. Besides this course, another course was designed for professors with some prior knowledge of EMI. It was an advanced course offered in another shift - the former was offered in the mornings and the latter in the afternoons.

The students enrolled in the course were professors from different fields with different levels of proficiency. All of them were female. Their areas of specialization were Biology, Nursing, Business, and Architecture. Their level of proficiency in English varied from A1 to B2.

Syllabus:

The course was designed as a one-week intensive programme. Given its short duration, the syllabus was adapted to introduce teaching methodologies for EMI while establishing possible connections with the principles of Academic Literacies. The overall structure of the course is presented in Table 1.

Day	Activities
December 09, 2024	Introduction of the course; Discussion about Academic Literacy in EMI; The concept of Genre
December 10, 2024	Genre: Students' course profile in EMI
December 11, 2024	Genre: Lesson Plan in EMI
December 12, 2024	Genre: Syllabus in EMI
December 13, 2024	General Presentation

It should be noted that the activities included in the course were largely inspired by an EMI Teacher Training course previously completed by the instructor. This course was offered by RELO Brazil in partnership with Ohio University. The goal was to integrate these activities with the principles of Academic Literacies.

Activities proposed in the course

In this section, the course activities will be presented. These activities are titled as: 1) Student's course profile; 2) Lesson Plan; 3) Syllabus. They were proposed in the course to the content teachers who were attending the course to develop their own activities based on the principles of Academic Literacies.

The choice of these activities was justified by the belief that, in EMI courses, content teachers can adapt these genres according to the specific needs of their own courses and with specific discursive communities. Adapting these activities is a way to align with the Academic Literacies framework, which views the concept of genre as central as central for literacy development.

After presenting the name of the activity, two components are proposed. In the former, the purpose of the activity is described. In the latter, the activity itself is presented. This sequence reflects the order in which the activities were delivered during the course.

Activity 1: Student Course Profile

Purpose of the activity

The students' course profile was designed as an activity that was designed to assess participants' interest in enrolling in the course. The goal of the content teacher was to propose an activity that would assess whether the learner had the required profile and interest to take an EMI course.

The content teachers were instructed to design such activities to make it clear that the main focus of the course was academic and not language learning. In other words, participants were informed that English functioned solely as the language of instruction, rather than its focus.

Activity Procedure

Dear Student: Welcome to our _____ course. I look forward to working with you in this course and studying the course content together. As you know, this course will be in English, meaning the readings, discussions, homework, and exams are all in English. In order to better understand your experiences, please complete these questions below. There are no wrong answers!

1. What is your name?

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2. Which sentence describes your experiences?
a. I have never taken a class that was mostly taught in English
b. I have taken ESL/EFL classes (i.e., classes on how to speak English) that were mostly taught in English
c. I have taken classes on other subjects (e.g., science, business) that were mostly taught in English
Please list any classes you have taken that were taught in English (not English classes):

---

3. How confident do you feel about taking this course in English?

a. not confident at all
b. somewhat confident
c. very confident
Please comment:

---

4. How often do you use English in any of your classes now?

a. never
b. sometimes
c. often
d. always
Please comment:

---

5. In your classes in any language, circle which activities you usually do. (circle as many as you want)

a. take notes (in any language)

b. ask questions to the instructor (in any language)
c. ask questions to other students (in any language)
d. participate in discussions (in any language)
e. talk in pairs or small groups (in any language)
f. give presentations (in any language)
g. Other: _____

6. If you have taken any classes in English (but not English language classes), what helped you to understand the content? Please describe.

Activity 2: Lesson Plan

Purpose of the activity

In the lesson plan section, the Academic Literacies framework was introduced through classroom activities through suggestions for designing lessons aimed at the production of different spoken and written genres. These genres could be written or spoken, digital or print. The concept of genre would serve as a guide to be followed by content teachers in order to propose activities aimed at reaching academic outcomes.

Activity Procedure

EMI Lesson Plan Template		
Instructor's name, course name, and class time (e.g., 1 hour)**:** **Lesson plan topic:** **Student learning objectives** (1 or 2)**:**		
Teaching Context: Level:		
Activity, Type, and Progression List the activities you plan for this class, in order of progression, and give a brief description. Include at least the following: (a) a warm-up for students on a few English vocabulary or grammar points that they will need in order to understand the lesson; (b) a mini-lecture on your topic with student support; (c) in-class interactive activity(ies) that will allow the students to develop both their English skills and their content knowledge/skills; and (d) re-grouping to summarize content at the end of class.	**Duration** (in min.)	**Textbook/Materials** If a textbook, provide a title. If online sources, provide link/URL to specific web pages. If a handout, provide a handout with this lesson plan.

Warm-up:		
Mini-lecture topic:		
In-class interactive activit(ies):		
In the second moment,		
In the third moment,		
Re-group to summarize:		

Assessment:

Identify what you would like feedback from your group regarding your lesson plan.

Activity 3: Syllabus

Purpose of the activity

In the syllabus section, the content teachers were first oriented to write learning objectives aligned with the intended learning outcomes. After planning the learning objectives, the content teachers were instructed to design units or modules designed to teach content through genres.

Activity Procedure

Backward Design Worksheet for Creating your EMI Syllabus

Follow the steps in this worksheet to help you write Student Learning Objectives, create your course assessments and grading system, and choose materials that can help students succeed with the assessments you create.

Step 1: Write your Student Learning Objectives (i.e., Identify your Desired Results)

What do you want the students to be able to do?

Tip: Use active verbs that are observable and measurable to start the objective. For example, you can use *identify, describe, present, discuss,* or *evaluate*. Do not use words like *understand* or *learn*, since they are not observable and measurable.

Sample Student Learning Objective: Students will be able to *identify and explain* the definitive characteristics of living organisms.

Write 3-5 Student Learning Objectives that start with “Students will be able to…”:

Students will be able to…

1.
2.
3.
4.
5.

Final Remarks

This course was designed to contribute to the internationalization policy of the university where it was offered. It was an initiative designed to provide content teachers with initial guidance about how the undergraduate and graduate courses could be taught in English, according to the EMI principles.

Drawing on the Academic Literacies and Genre Studies frameworks proved to be an effective way to demonstrate the importance of developing academic courses in English. Most of the content teachers who were part of this course were unfamiliar with such concepts and did not know how to develop a course for international students either.

Furthermore, it is important to highlight that the background of Academic Literacies and Genre Studies also encouraged the content teachers to reflect on their own academic perspectives regarding the notions of teaching and learning in undergraduate and graduate courses. Some of them were still following the notions of lecture-centered lessons, without any kind of interaction with students. For them, the process of developing the course activities provided an opportunity to be engaged in a new educational methodology.

For the field of EMI, this experience report is an example that demonstrates how the theoretical and pedagogical repertoire of Applied Linguistics can contribute to the development of an emerging area of research and practice. The activities proposed provided suitable conditions for EMI instructors and for EMI course participants to develop specific goals according to their discourse communities.

For future research, it is suggested that the EMI course participants and instructors could be interviewed about their own perspectives regarding how Academic Literacies and Genre Studies can be helpful in an EMI teacher training course. Analyzing these views is a possible way to offer a fruitful avenue for future research in order to contribute to new developments in EMI research and practice.

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13. Reframing Language Teachers' Roles in ICLHE from a Course on Interculturality in Healthcare

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Abstract: As English as a Medium of Education (EME) and Integrating Content and Language in Higher Education (ICLHE) expand, the role of language teachers in these contexts requires critical reconsideration. Traditionally positioned as language specialists, how can language teachers contribute meaningfully to courses that do not explicitly focus on language, without being reduced to “walking dictionaries”? This text presents insights from a practice-oriented online course on interculturality in healthcare, co-taught by three language teachers with students from Brazilian and European universities. The course was designed as a discursive and intercultural exploration of healthcare practices across linguistic and cultural contexts. Rather than treating language as a utilitarian tool for producing “correct” English, the course foregrounded discourse, communication practices, and the cultural and epistemic dimensions of healthcare interactions. This experience challenges the instrumental positioning of language teachers in ICLHE and proposes a reframing of their role as designers of discursive spaces and mediators of intercultural and professional meaning-making. The reflection discusses the implications of conceptualizing language not as an ancillary skill, but as constitutive of disciplinary participation and professional formation in health sciences contexts.

Keywords: EME, language teachers’ roles, interculturality, healthcare, internationalized higher education.

Introduction: Setting the Puzzle: Where Do Language Teachers Stand in ICLHE?

The expansion of English as a Medium of Education (EME) and Integrating Content and Language in Higher Education (ICLHE) has been widely documented as a defining feature of the internationalization of higher education (Dearden, 2014; Wächter & Maiworm, 2014). Across Europe and increasingly in Latin America, Asia, and other regions, universities have introduced English-taught programs in non-Anglophone contexts, particularly in fields such as medicine, engineering, and business. Within this movement, language is often conceptualized as a vehicle for disciplinary knowledge rather than as an object of study. In many institutional implementations, the responsibility for English shifts from language departments to disciplinary lecturers, while language support is externalized through preparatory courses or adjunct language services (Dafouz & Smit, 2016; Wilkinson & Walsh, 2015). This redistribution of responsibility raises a critical and insufficiently explored question: Where do language teachers stand in the EME/ICLHE paradigm?

Historically, language teachers in higher education have occupied relatively stable roles. In English for Academic Purposes (EAP) and English for Specific Purposes (ESP), they have prepared students for disciplinary study by focusing on genre, academic writing, and disciplinary conventions (Hyland, 2006; Flowerdew & Peacock, 2001). In such models, language and content were institutionally separated but pedagogically connected through support.

ICLHE, however, proposes a more integrated vision. It rejects the strict separation between language and content and instead conceptualizes learning as occurring through the interplay of disciplinary knowledge and linguistic mediation (Dafouz & Smit, 2020). Language is not merely the medium of instruction but a central component of meaning-making, identity formation, and epistemic participation in disciplinary communities.

Yet, in practice, this integration remains uneven.

Research on EME has frequently highlighted tensions between content lecturers and language specialists (Airey, 2012; Macaro et al., 2018). Content lecturers may perceive language as secondary to disciplinary knowledge, while language teachers may be positioned as remedial support providers rather than epistemic partners. In such configurations, the risk is twofold:

1. Language becomes invisible — treated as a transparent conduit for content.
2. Language teachers become peripheral — invited to “fix” students’ English rather than contribute to disciplinary formation.

This marginalization contrasts with theoretical perspectives that emphasize the discursive construction of knowledge. From a sociocultural and discourse-oriented standpoint, disciplinary knowledge is not independent of language; it is enacted and negotiated through it (Lemke, 1990; Gee, 2014). In professional fields such as healthcare, communication is not ancillary but constitutive of practice. Clinical reasoning, patient interaction, ethical deliberation, and interprofessional collaboration are all mediated through language and embedded in cultural frameworks.

At the same time, as previously mentioned, such sidelining of language educators has also been described as the instrumentalization of language teachers within EME classrooms, where they risk being positioned as technical auxiliaries rather than epistemic collaborators (Wilkinson, 2008). In some contexts, language specialists are perceived as form-focused “accuracy referees” or as subordinate aides to content lecturers, reflecting structural imbalances of power within interdisciplinary teaching arrangements (Fortanet-Gómez, 2011). Such positioning reinforces the perception of language expertise as subordinate rather than constitutive. If ICLHE genuinely aims at integration, then language cannot be reduced to correctness, nor can language teachers be confined to linguistic remediation.

The puzzle thus becomes more precise:

- If disciplinary knowledge is discursively constructed;
- If professional practice in globalized health contexts is multilingual and intercultural;
- And if ICLHE seeks to integrate language and content.

What is the pedagogical and epistemic role of the language educator in such environments?

Is the language teacher:

- A linguistic specialist supporting accuracy?

- A mediator of disciplinary discourse?
- A facilitator of intercultural meaning-making?
- A co-designer of learning environments?
- Or an actor whose role has not yet been fully conceptualized in ICLHE research?

This question is not merely functional. It concerns the distribution of pedagogical authority and the epistemological status of language within higher education. It also intersects with broader debates on internationalization: whether it reproduces monolingual hierarchies or opens spaces for critical, intercultural engagement (Phillipson, 2009; Mignolo, 2011; Stein, 2017).

In health sciences education — still predominantly lecture-based and often grounded in positivist traditions — the space for discursive, intercultural exploration may appear limited. Yet healthcare practice itself is inherently relational, cultural, and communicative. This tension intensifies the question: Can language educators in ICLHE contexts move beyond linguistic support to become agents of discursive, intercultural, and professional formation — without abandoning their linguistic expertise?

Rather than beginning with a predefined theoretical model, this paper approaches the puzzle through a pedagogical experience: an online course on interculturality in healthcare co-taught by three language teachers with students from Brazilian and European universities. The course did not explicitly “teach English,” yet language was constantly at stake. It did not foreground grammar, yet it engaged deeply with discourse, communication practices, and cultural negotiation in healthcare settings.

It is from this experience that we revisit the central puzzle: What does it mean to be a language teacher in ICLHE when language is everywhere, but language teaching is nowhere explicitly named?

Before presenting the course itself, it is important to situate it within broader discussions of intercultural communication and ICLHE. Interculturality in higher education has increasingly been framed not merely as the development of adaptive skills, but as a critical engagement with cultural meaning-making and discursive practices (Baker, 2015; Rings & Rasinger, 2023; Tuleja, 2022). Within ICLHE scholarship, integration implies more than linguistic scaffolding; it entails recognizing language as central to disciplinary participation and identity construction (Dafouz & Smit, 2020). From a discourse-oriented perspective, knowledge is enacted through communicative interaction rather than transmitted independently of it (Gee, 2014; Lemke, 1990). These perspectives collectively suggest that courses addressing interculturality in professional domains such as healthcare offer a fertile site for examining how language operates as both a medium and constitutive element of disciplinary practice. It is within this theoretical horizon that the course on Interculturality in Health Care was designed and implemented.

On the other hand, medical education remains strongly oriented toward clinical application and disciplinary specialization, often privileging biomedical knowledge over communicative and

relational dimensions (Park et al., 2021). Yet research increasingly underscores plain-language communication as a core professional competence in globalized health systems (Warde et al., 2018). Recent interdisciplinary work on EME further calls for moving beyond applied linguistic concerns to engage with broader epistemic and institutional transformations (Hultgren et al., 2025). These tensions reveal a gap: a space within medical ICLHE where language educators can act not only as support providers, but as critical contributors to professional formation.

Designing Interculturality in Healthcare as Discursive Practice

The course *Interculturality in Health Care* was jointly organized by the University of Mons/Belgium and the Federal University of Health Sciences of Porto Alegre/Brazil within the framework of the program *Crossing Borders: Interculturality and Multilingualism in Europe and Beyond*. Its offer to students coming from a group of European institutions, apart from the South American participating university, springs from the EUNICE (European University for Customised Education) alliance, which is a transnational coalition of public universities founded in 2020 and currently present in ten European countries — Belgium, Finland, France, Germany, Greece, Italy, Poland, Portugal, Spain, and Sweden — with a mission focused on transforming teaching and learning experiences and promoting interdisciplinary cooperation at scale (EUNICE, n.d.). Awarding 3 ECTS (European Credit Transfer and Accumulation System) credits for its successful completion, the course combined self-study, synchronous online sessions, and hybrid on-campus activities, bringing together students from different international institutions in a shared learning space structured around intercultural dialogue (Fatigante et al., 2023; Rings & Rasinger, 2023; Tuleja, 2022). In the two iterations it has had so far, the course was open to undergraduate and graduate students, particularly those in health-related programs. English functioned as the primary language of instruction, while selected resources were also provided in Portuguese and French, offering participants exposure to local linguistic realities. Rather than enforcing monolingual norms, the course explicitly acknowledged multilingualism as part of the learning ecology.

Framing the Central Question

The course was structured around a foundational inquiry:

Is the concept of health (WHO, 1948) universal, or is it culturally grounded?

This question served not only as thematic orientation but as epistemological anchor. Students were invited to interrogate assumptions about universality in medical practice, exploring how cultural values, communication styles, and social identities shape healthcare interactions.

The content addressed:

- Multicultural aspects and health issues;
- Communication challenges in healthcare;

- Global perspectives on health care;
- Emerging and hidden identities across South American and European contexts;
- Language as inclusion or exclusion in health environments.

These themes positioned healthcare not merely as technical practice but as relational, communicative, and culturally situated. In order to reach them, the 30-hour program was built mostly in the synchronous structure, around nine interactive modules.

Learning Outcomes and Pedagogical Orientation

The stated learning outcomes emphasized:

- Understanding “culture” (Baker, 2015) and its relevance to health care;
- Developing cultural awareness in healthcare settings;
- Acquiring reflective tools for professional practice;
- Gaining communication skills and language awareness for inclusion.

Importantly, the outcomes did not include grammatical accuracy or language proficiency as explicit objectives. Instead, language awareness and communicative competence were embedded within broader intercultural and professional development goals. Pedagogically, the course adopted a student-centred, practice-oriented approach. Activities included audiovisual materials, readings, interactive exercises, student-led discussions, and collaborative tasks. Assessment was formative and portfolio-based, culminating in an open to everyone and public online symposium where students presented reflective syntheses. The design deliberately foregrounded reflection, negotiation of meaning, and intercultural dialogue rather than linguistic correction.

Language Without “Language Teaching”

Although all instructors were language teachers, the course did not position itself as an English class. No explicit grammar instruction was provided. There were no accuracy-focused drills, nor were students evaluated based on linguistic correctness. A B1+ level of English was recommended, but language proficiency functioned as an entry condition rather than learning objective.

Instead, language operated as:

- A medium for negotiating cultural perspectives;
- A resource for examining professional identities;
- A site where inclusion and exclusion could be critically analyzed.

Students explored how communicative practices in healthcare can reproduce hierarchies or foster equity. They examined case scenarios involving linguistic misunderstandings, culturally grounded health beliefs, and hidden identities. English became the shared space of interaction — not as normative standard, but as a discursive meeting point between diverse linguistic repertoires.

The Structural Tension

The course thus embodied the puzzle outlined in Part I. Three language teachers co-designed and co-taught a course in health sciences without explicitly teaching English. The disciplinary field was healthcare; the epistemological focus was interculturality; the pedagogical emphasis was discourse and communication. Language teachers were not correcting language. They were structuring dialogue, framing reflection, mediating perspectives, and designing communicative tasks.

This configuration destabilizes traditional categories:

- The instructors were not content specialists in the health field;
- Nor were they delivering conventional language instruction;
- Yet language was central to every activity.

The course therefore functioned as a pedagogical experiment in redefining what language expertise means within ICLHE contexts — particularly in health education, where lecture-based traditions still dominate and communication is often treated as secondary to biomedical knowledge.

Rather than presenting the course as a model to be replicated, we present it as a site of inquiry. It provides a concrete setting in which to examine how language teachers might operate when language is understood not as correctness, but as discourse, identity, and intercultural practice.

Our Exploration: Reframing the Language Teacher in ICLHE Health Contexts

The course described above did not aim to innovate language pedagogy per se. Yet, in practice, it destabilized conventional assumptions about what language teachers are expected to do in English-medium higher education. It is through this destabilization that we begin to explore the reframing of language teacher roles in ICLHE contexts.

Rather than positioning ourselves as linguistic correctors or support providers, we occupied a different pedagogical space — one that can be provisionally described through three interrelated shifts.

1. From Language Instructors to Designers of Discursive Spaces

In traditional EAP/ESP configurations, language teachers often focus on textual production, genre conventions, and accuracy. In EME contexts, they may be called upon to remediate perceived linguistic deficiencies. In this course, however, our primary task was neither correction nor remediation. Instead, we designed discursive spaces.

The central pedagogical work involved:

- Framing questions that exposed cultural assumptions;
- Structuring dialogue across linguistic and national backgrounds;
- Facilitating meaning-making around healthcare scenarios;
- Making visible how communication practices shape professional interaction.

Language was not the object of instruction, but the condition of possibility for interaction. Our expertise lay not in correcting English, but in orchestrating communicative encounters in which language functioned as a site of negotiation. This shift reframes the language teacher not as a technician of correctness, but as a designer of epistemic dialogue.

2. From Linguistic Accuracy to Epistemic Mediation

In multilingual medical environments, English is frequently treated as a neutral lingua franca. Yet this neutrality is illusory. English carries epistemic histories, professional hierarchies, and geopolitical asymmetries. Within global health education, the dominance of English risks reproducing Western biomedical paradigms as universal standards (Phillipson, 2009; Mignolo, 2011).

In Interculturality in Healthcare, language mediation therefore involved not only facilitating dialogue but also unsettling assumptions about whose knowledge counts as legitimate. When Brazilian and European students discussed culturally grounded understandings of health, English became a shared medium — but not a homogenizing one. The aim was not to approximate Anglophone medical discourse, but to create a space where multiple epistemic traditions could be articulated without being subsumed. Besides, the course foregrounded interculturality in healthcare, a domain in which communication is inseparable from ethical practice and professional identity. Students were invited to analyze how misunderstandings, hidden identities, and cultural expectations shape patient care.

In such contexts, what becomes salient is not grammatical precision but:

- How assumptions are articulated;
- How meanings are co-constructed;
- How perspectives are negotiated;
- How inclusion and exclusion are discursively enacted.

Our role therefore shifted toward epistemic mediation.

We mediated between:

- Brazilian and European healthcare imaginaries;
- Different understandings of universality in medicine;
- Diverse linguistic repertoires operating within English.

This mediation required linguistic sensitivity, but not in the narrow sense of error correction. It required awareness of discourse, pragmatics, and intercultural positioning. Language expertise became a form of interpretive and relational competence. By not centering grammatical correctness as the primary learning objective, the course resisted equating linguistic legitimacy with proximity to native-speaker norms. English functioned as a shared communicative space rather than as a benchmark of authority. This repositioning challenges the colonial logic that associates linguistic purity with epistemic superiority. Instead of disciplining students into standardized English, the course focused on foregrounding meaning-making, negotiation, and plurality.

3. From Support Role to Co-Constructors of Professional Formation

ICLHE often aspires to integrate language and content. Yet, institutional practices frequently relegate language teachers to preparatory functions. In contrast, our efforts were for positioning language teachers at the center of professional reflection. By focusing on interculturality, communication, and identity, we engaged directly with the formation of future health professionals. We addressed:

- How clinicians respond to culturally grounded health beliefs;
- How power circulates in clinical encounters;
- How multilingual environments reshape professional interaction.

In doing so, we believe that we contributed to professional formation, not merely linguistic development. This suggests a broader reframing: language teachers in ICLHE contexts may operate as co-constructors of disciplinary participation, particularly in fields where communication is constitutive of practice. Thus our experience stemming from this course resonates with broader movements in health sciences education that advocate for integrating narrative, reflexivity, and humanistic perspectives into educational training. Attention to language, discourse, and storytelling in healthcare contexts aligns with calls to re-center the humanities within medical curricula as a means of fostering empathy, ethical awareness, and critical reflection. In this sense, language educators contribute not only to communicative competence but to the humanistic foundations of professional practice.

Furthermore, rather than treating interculturality as the acquisition of skills for navigating difference, the course approached it as an examination of structural asymmetries in global health knowledge. Students were encouraged to question the presumed universality of biomedical

concepts and to reflect on how colonial histories continue to shape health systems, professional hierarchies, and linguistic dominance. In this sense, the role of the language teacher extended beyond facilitating polite cross-cultural exchange. It involved making visible the power dynamics embedded in communication practices.

The Implications of "Not Teaching Language"

One of the most striking aspects of the course was that we did not explicitly teach language. No grammar syllabus was presented. No lexical lists were assessed. Yet language was everywhere. We advocate that this paradox invites reflection. If language is conceptualized narrowly as structure and correctness, then indeed we did not teach it. But if language is understood as discourse, identity work, and intercultural negotiation, then language is central to every task.

The experience therefore challenges binary distinctions between:

- Language vs. content;
- Language teaching vs. disciplinary teaching;
- Linguistic competence vs. professional competence.

It also complexifies the assumption that language teachers must either defend their disciplinary territory or dissolve into content instruction. A third position may be possible: one in which language expertise enables the orchestration of intercultural, discursive, and reflective engagement within disciplinary domains.

Repositioning Language Teachers in ICLHE Health Education

In predominantly lecture-based medical education settings, communication is often treated as a secondary skill. Nevertheless, healthcare practice is inherently relational, culturally situated, and linguistically mediated. Within this tension, the language teacher's role may expand rather than diminish. Instead of asking how language teachers can "fit into" EME contexts, we might ask:

- How can language expertise illuminate the discursive foundations of professional practice?
- How can language educators foster reflexivity in multilingual medical environments?
- How can they contribute to de-centering monolingual, universalist assumptions in global health education?

These questions extend beyond the specific course presented here. They invite reconsideration of how institutions conceptualize language within internationalized higher education.

Returning to the Puzzle

We began this discussion with a question: Where do language teachers stand in ICLHE?

Our experience suggests that they may stand:

- At the intersection of discourse and discipline;
- At the interface between linguistic diversity and professional identity;
- In the design of dialogic spaces where knowledge is negotiated rather than transmitted.

In ICLHE health contexts, language teachers may operate as facilitators of epistemic plurality — creating spaces in which English does not erase difference but hosts it. Their expertise lies not in enforcing linguistic conformity, but in enabling critical, intercultural, and ethically grounded participation in multilingual professional worlds.

This position does not eliminate the need for linguistic expertise. It redefines it. Language teachers in ICLHE health contexts may not be walking dictionaries. They may be architects of communicative environments in which intercultural professional competence becomes possible.

Implications for ICLHE Design, Collaboration, and Institutional Positioning

The reframing proposed here carries implications at multiple levels of ICLHE implementation. First, for ICLHE design, it suggests that integration should not be reduced to aligning language outcomes with disciplinary content. Instead, course design can foreground discourse, intercultural negotiation, and epistemic plurality as constitutive dimensions of disciplinary learning. In health education contexts, this means recognizing communication not as a soft skill but as integral to clinical reasoning, ethical deliberation, and professional identity formation. Second, for faculty collaboration, the experience challenges hierarchical models in which language specialists provide remedial support to content lecturers. A more dialogic model positions language teachers as co-designers of learning environments, contributing expertise in discourse, multilingual interaction, and intercultural mediation. Such collaboration requires institutional structures that recognize epistemic complementarity rather than disciplinary subordination.

More broadly, this reframing supports interdisciplinary calls to expand EME research beyond technical concerns of proficiency toward a more integrated understanding of language, power, and professional identity (Hultgren et al., 2025). Recognizing language teachers as legitimate actors within health sciences education may help rebalance institutional hierarchies that have historically confined them to auxiliary roles.

Finally, for the institutional positioning of language teachers, this reframing calls for moving beyond service-oriented roles. When language is understood as central to knowledge construction and professional participation, language educators become strategic actors in curriculum

innovation and internationalization efforts. Recognizing this role may reshape how universities conceptualize expertise within ICLHE frameworks.

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Part III

Language, Academic Literacies, and Disciplinary Participation

14. Professional (Content/Subject) Language Is Like the Air

专业语文就像空气

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Abstract: I am a content teacher, and I currently teach macroeconomics in a unique academic setting in three ways. First, a short (7-course program spanning 3 semesters) certificate program for a selected cohort (100 students each year) of freshmen and sophomores, who**, without any prior intention of entering an EMI college environment, may have only an OK level of English proficiency. Second, a Chinese language environment where my students take most of their courses in Chinese, with me, a Chinese native speaker, as their teacher in EMI. Third, I tried my version of CLIL. I just finished a year-long sequence of macroeconomics courses, armed with my evolving “philosophy” and CLIL ideas. The main idea: Professional (here, macroeconomic) language is like the air; students’ academic and general English ability, the soil; and a course, the plants** that grow in between. I conduct the course from the angle of a central banker (U.S. Fed, in particular), a setting where an uttered sentence could be worth a billion (usually more) USD. As a not-too-far-off analogy, all macroeconomics courses are (financial) language courses, and “all teachers are language teachers”. Translanguaging strategies were employed, and the concept was discussed.

Keywords: CLIL, macroeconomics, undergraduate teaching.

“Air”, Plants and Soil

Ever wonder why an EMI course should be English-taught? (Yes, of course! Got the ‘E’.) Or, in my case, why an EMI macroeconomics course should be English-taught?

Content teachers who are lucky enough to face a teaching language choice between L1 (native-level) and L2 (English) need to ponder this question, even though they are usually assigned to do the EMI without much thought (from the authority and the teacher). Here, the language use refers not simply to oral language used in class (options of English, Chinese, for instance, or a hybrid), but also to the language choice of available resources, public knowledge, and the general public’s perception. Language teachers might not need to consider the options and should simply treat English as indispensable.

When I taught American students (full-fledged economics courses for three years as an adjunct while a doctoral student in the early 2000s), I had a hard time delivering convincing classes; not equipped with societal understanding or even knowledge about the U.S. economy, I could merely provide my economics textbook knowledge. The classes were like uphill battles, and of course I learned some of the world my American students had lived. I did badly, but the great training became my cornerstone of EMI teaching (Thank you, CUNY-GC!).

While later in Taiwan and mainland China, as I taught EMI courses to Chinese-speaking students, I had authority on the English language (as well as the content), so it could be an advantage that I only dealt with the analytical side. Chinese students listened to me, but the “soil” (students’ English ability) was not really ready (not ready enough, as always). And I blew the “air” of irrelevance when I usually taught content from the American textbook; classes were convincing but irrelevant to them (that was not interesting). A suffering course (the “plants”) grew in between.

In this article, I discuss my CLIL ideas from the angle of a Chinese native-speaking content teacher who teaches Chinese students. As a former L2 English speaker, an “L1-native” English speaker (during the last several years of my 11.5-year stay in the U.S.), and now back to being an L2 English speaker again, I have a good perspective on the language. Here I deal with the content teacher’s challenge in an awkward EMI course when both sides can communicate in fluent Chinese. (“Foreign teachers 外教” who could only communicate effectively with Chinese students in English are not my concern; their EMI courses would be interesting to examine, though.)

Social surroundings nurture the language; a collection of Issues and themes forms the professional language. With my “soil” (the students) / “air” (professional language + content) / “plants” (the course) CLIL concept, I consider why a subject course needs to be taught in English. Language training cultivates and nurtures the soil (the students), but the “air” that a content teacher blows in matters much more: professional-speak. Air” could be too thin or could be toxic; the context (语境) of a subject course depends on the available materials and media sources in various languages. Thus, in this paper I will discuss the “air” in more detail.

Fundamentalist’s View

A fundamentalist’s view (content teachers) is a content-centric, theme-based “air” course. Themes developed in the English context should be taught/conveyed in English (not necessarily orally). I took this view and experimented on a financial English language course in Fall 2017 in Taipei (Taiwan), for several serious but not English-prepared graduate students.

I designed a theme-based course “U.S. Federal Reserve English.” I taught in Chinese, but I used a textbook that was actually an academic book about the U.S. Federal Reserve (not intended for English language learning). I tried my hand at several language exercises (oral, reading, writing, translation) and exhausted all of the content teacher’s tricks. At my end, my enduring advice to students was Nike’s “Just Do It” slogan.

I chose the U.S. Federal Reserve theme because I looked for professional content developed in an English environment (English “air”) that made sense only when delivered in or learned through the English language. Aside from my personal and work-related backdrop, the U.S. Federal Reserve theme fit the bill; the theme grew in the English environment and naturally made sense to be taught in the English language. A group of Chinese-native students and the teacher used English as a medium of communication and talked about the U.S. Federal Reserve. Besides, the U.S. Federal Reserve was one of only several world issues people in Taiwan cared about; finance workers “felt it”, as interest rate decisions made by the U.S. Federal Reserve affected Taiwan’s economy and financial investments. The theme was a really good match.

Moreover, available Chinese materials (in Taiwan) on the U.S. Federal Reserve were narrow and Taiwan-centered; they had been selected (and translated) to suit the general public’s taste. Commercial books on the theme were shallow and sensational. Professional, analytical articles

did not fit an English-speaking context. Chinese content (the ill-formed “plants”) reflected the thin “Chinese air” on the theme. And since these materials were in Chinese, I could hardly use them as my English language learning materials.

So, the fundamentalist offers a convincing argument on behalf of content teachers: Issues and themes that grow in an English-language environment should be taught in English. You breathe in the financial English “air” as you teach “Financial English”. It serves as a good reference point even though the course may be conducted in Chinese.[12]

In the following sections, I describe the macroeconomics teaching I conducted over the two academic years from Fall 2023 to Spring 2025 at Tan Kah Kee College’s International Class. I was not educated in mainland China, and I did not have prior long-stay experience when I first came here seven years ago (still at the same college); I was then not familiar with mainland China’s higher education. The college is situated in the Chinese southeast coastal region of the Taiwan Strait. I conduct the two-course sequence from the angle of a central banker (the U.S. Federal Reserve, in particular). I provide the “analytical as interesting” idea, which is gleaned from my experience with EMI teaching.

Student Cohort

I teach macroeconomics in a unique (or special) academic setting in three ways. First, in a short (7-course program spanning 3 semesters) certificate program (we call it the “International Class”) for a selected cohort of freshmen (100 students each year), who**, without any prior intention of entering an EMI college environment, may have only an OK level of English proficiency**; they continue until the end of their sophomore year. Second, in a Chinese language environment where my students take mostly courses in Chinese, with me, a Chinese native speaker, as their teacher in EMI. Third, I tried my version of CLIL, as a content teacher who started to look for resources seven years ago. I just finished a year-long sequence of macroeconomics courses.

My student cohort each year comes from three business-related schools in TKKC (Accounting and Finance, Management, and International Business Schools). Essentially, the cohort consists of students from all sorts of business majors. The first macroeconomics course (The Principles) is required for every business student in TKKC, including the International Class students, while the second macroeconomics course (Intermediate) is set as required for International Class students in their sophomore year, but only as an elective course for other business students (and not so many would take). And this Intermediate course raises the bar for some students who are not inclined to study economics-related subjects — and a challenge for me as a teacher. Upon enrollment, the students are divided into three groups.

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12 A more fundamentalist course, if you will, here I offer as an example. The English literature teacher explained to her Chinese students why she had to conducted History of Britpastish Literature course in English (齐邦媛, 2009). “To read the literary history correctly... to keep the original, intricate flavor... For example, “Romantic” is not the 浪漫 romantic-love that you are aware in our Chinese context.” I put her Chinese text here: “[第一堂课] 为了稳定自己与听众，我先用中文说明英国文学史和一切文化史一样...和我们即将开始正确阅读的...，都有很复杂的历史意义。我不赞成，也没有能力用中文口译原作，所以我将用英文讲课，希望能保存原文内涵的思想特色。我不愿用“浪漫时期”的中文译名，简称那一个...因为“Romantic”所代表的既非...亦非...。它是一种...。”

Students are smart and motivated (I think they are the best student cohort I've ever taught in my teaching career). And they aim for higher goals (graduate school, for example) or better careers. Or maybe, similarly, they think they should not have been "just here (TKKC)". And as a teacher, I need to take this into account and explore ways to tap into this mindset. I like to use the Tsinghua University (China's best school) analogy and tell students that, as far as the 20,000 TKKC students are concerned, we are still far, far behind, but you 100 students (each year), as a small group, are at least now, as a group, much closer to the Tsinghua level. Students can tell that the teacher is not worshiping a great school but instead treats them as likely contenders for / future students at Tsinghua (a bit of an exaggeration, to be honest, and something that operates on faith). But this mindset is important. Let us call it "the growth mindset"; it opens opportunities and diverse expectations.

Class Dynamics

I describe 3 salient features that are English-language related:

1. It is inviting.

Considering students' language ability, I need to start with simple English sentences. The side benefit is that this makes my teaching more inviting. Because short, simple sentences also tend to be "vibrant", this allows more back-and-forth opportunities between the teacher and students. While students may remain silent, their minds are working and digesting my (simple) sentences, with the back-and-forth (along with pauses) constituting a conversation. As students grow along the way, I use longer and more complicated English sentences.

Lesson: Start with long sentences, and you lose the students' audience. My experience is that in China's Chinese-taught courses, delivering long sentences to a big group is more like the norm, making classes non-interactive and staid.

2. It brings attention.

An unfamiliar language brings an attentive audience. Students pay attention because the words sound fresh, even interesting to hear. They may have difficulty understanding, and that makes them nervous, which draws even more attention; beyond a threshold, they simply give up. For the teacher, the harder part is to maintain the "freshness" over a semester, or maybe just throughout a whole class session. I use individual and team presentations, which, including my comments and advice, may take up a third of a class session. I believe I use 10 out of the 24 class sessions for this purpose, in the name of language training (content + language, CLIL). I teach the English language in Chinese, since I learned English (grammar, sentence structure, oral presentation, and all that) much earlier in a Chinese environment, when I grew up in Taiwan. And more importantly, it's much easier for students to comprehend.

Lesson: Students would get tired anyway, so I am not without some episodes of minor failures. But be careful not to go over the sentence-length threshold—there may be no return. The drawback is that not enough material (in the teacher's perception) is covered over a semester.

3. It opens up “a world”

English opens up a world for the students to perceive. The American world, the English-speaking world, and the English-in-between (as a medium) world. Since I teach macroeconomics, I like to take the U.S. Federal Reserve’s (the central bank’s) angle, as I teach.

Rarely do two languages give rise to the same world. Translation is always imperfect, and things grow differently in two different sorts of “airs”. In my professional jargon, the U.S. Federal Reserve deals with the U.S. interest rate decisions, but the ramifications are worldwide (the strength of dollars, the U.S. economy, other central banks and economies, capital flows). My textbook is an American one, written in English; theories and stories are built up in the American context, which I know some of, and this becomes my niche, while my teaching is, of course, geared toward the U.S.

But the course still needs to be rooted in my students’ Chinese world, their starting point, at the very least to be relevant and useful to them. (In a similar vein, the Chinese world is also my niche, as opposed to that of “foreign teachers”.) Why do students care about the “American” things? How do these things relate to them? How about those “truly American” things that have nothing to do with them, but that expand their worldview? I need to juggle between the two worlds, one English, one Chinese (as I’m in it); I also need to find the confluence of the two worlds and may have to connect these two worlds with new bridges. This amounts to building up an integrated “new world” for them, at first and until much later.

Fortunately, I found a financial news app, WallStreetCN, a Chinese-language one that delivers economic and financial news with an international focus, with a writing style that is a bit distinct from other, mainly more domestically oriented (but usually more insightful) news outlets. I have been using the app in my Chinese-taught economics courses since I started teaching in mainland China seven years ago. The app founder worked as a correspondent in New York, USA, where he identified this business niche around 2002, and I could connect with the app’s writing, while I have some difficulty “getting it” with other Chinese economic outlets; their writing and content are too thick, dense, formal, and inward-looking.

As for the American news side, I luckily found the Marketplace radio program as I prepared for English-taught courses. It offers financial news for ordinary people, more oral in language — language suitable for my students, appropriate as they (and I) need to learn American English daily expressions (the American world), and the hosts are very friendly. Students can not only listen to the radio segment, but they can also read the English scripts offered on the same webpage; Marketplace is an excellent economics-related language study resource. If only the students (and I) used it more often.[13]

13 Chinese macroeconomic contents: WallStreetCN, see: https://wallstreetcn.com/ American-English oral practice & listening: Marketplace radio program, see: https://www.marketplace.org/shows/marketplace/. I have the leisure in doing macroeconomic principles and intermediate classes back-to-back, which lasts for a year (two semesters). I thus assigned some simple but long-period assignment during winter and summer vacations. For one, students read out loud Marketplace radio segments for six weeks in the winter vacation (two per week), record them and send to QQ oral group. (QQ is one default message app in China; it became popular for class group use during the Covid-19 years and have remained thereafter.) It develops students’ English oral skills; I also offer this practice during the semester. Another one in this summer

Lesson: Even though the two news sources were relevant and useful, I found that I could not make enough use of them during the semester. I sent those articles to the QQ (a messaging app in China) class group for them to read, and advised them that even a glimpse of these articles would be enough. These were articles with professional content and took time to read. I wonder how many students actually read those articles (Ans: Not many). The idea that students understand that we're studying "useful" things looks comforting. Meanwhile, the "world" you build for the course would be idiosyncratic, based on your individual experience and professional view. The "world" I build for my students is very important to me.

The three language-induced features showcase the class dynamics particular to my context. While these features may be peculiar, you can see that a "Chinese-insider" content teacher tries to help students make sense of their world (Chinese and English), as the teacher deals with pitfalls and promises the English-taught courses could possibly offer.

"Analytical as Interesting"

I would like to discuss the idea of "analytical as interesting" and put it in a content-versus-language context. I raised the idea of "analytical as interesting" (Liao, 2022) as a guide to my content design for an EMI course. When I taught a "cross-strait" (Mainland China–Taiwan) economy and trade EMI course in 2014, at the MA level in Taiwan, the contentious service trade agreement triggered the young generation's political "Sunflower Movement." When I looked for English materials that could be used in classes, I realized that those were either government public-relations promotional translations on policy, or English news outlets that dealt with events and facts (not updated quickly enough), but not much in-depth analysis (whereas Chinese articles talked about the event in great depth, of course). Few English materials made the grade.

You knew the government's intention when you read the official policy promotions, and you knew not much (and not in a timely manner) as you read the English news. In two words, these materials were "not interesting"; those interesting ones were around, everywhere now and then, in Chinese. And I soon realized that those interesting articles were "analytical" in nature, which was fun to read and "made grade" for class use. They were interesting also because they were timely issues and scenes that evolved. (How about the use of English-written textbooks? Well, they were there; analyses were deep, analytical, but not timely; students and I would get bored.)

So, I came to the idea that issues were organic; if they grew in the Chinese-language environment, they grew in the "air" of Chinese. For the course to be "interesting" (relevant, timely, vibrant, you name it), you have to use that language to learn (no good, timely translations around for a second language, not least a reason). Content teachers, when unbounded by language choice, would use whatever is good for an "interesting" course.[14]

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vacation (in-between Principles and Intermediate) is to send a macroeconomic news article on WallStreetCN or Marketplace to a QQ group; as they do it, they read some other news and keep up with financial and economic events. Extra points are added to semester course scores.

14 Which brings to a more basic question: Why should this course be taught in English? (After the curriculum is set,) EMI content teachers rarely discuss it; as we get started, we may simply treat English as default. I think, for courses at the higher-ed level, contents are deeply affected by the social and language environments. (While English language courses teaches English, no doubt, and by choice most likely desirably be

As an example, in the Fall 2017 semester, I tried teaching as an adjunct (I left for an industry job then) using the idea of “U.S. Federal Reserve English”. The course was officially named Financial English at the MA level, and I tried my version. It was a language-requirement course with only 6 students and was not EMI. I taught the language-training course in Chinese, and even though it dealt with language, I used materials that were all related to the U.S. Federal Reserve. The reason: This thread of financial English had been growing in the American (and international) English environment. It was organic, dynamic, and “analytical as interesting”.

My “Interesting” Courses

My current one-year sequence of two macroeconomics courses, for first- and second-year undergraduate students, reveals my idea of “analytical as interesting”. I quickly admit that being “analytical”, I valued content more than I valued the language, but I conscientiously, conspicuously put in language learning, even at the very basic (some students and teachers would argue tedious) level. EMI content teachers rarely do this intentionally, as far as I know.

I think vocabulary is important, and I emphasized this idea by installing two vocab quizzes (14 semester points total). As I said in the quiz announcement in QQ class group online, “One more vocab opens one stream of thoughts多一个字，就打开一个思路“; I borrowed the saying from a like-minded teacher (English department here). Several students and staff members thought it unnecessary and showed obvious resistance in my first installments, but I insisted because “without those words, you could express nothing.” Vocabulary was picked from the textbook, while I listed it for students (they did not need to locate it by themselves). It was not (just) about that vocabulary, but about the practice (memorizing words) (Masrai et al., 2022).[15]

One premise whenever I teach (at least at TKK College) is to imbue students with “career aspirations”. I’ve been trying to figure out the student-course-career link in all my courses, providing students with whatever relevant evidence I could find, through articles and links sent to the online QQ class group and guest talks. Arrangements were random, unplanned, and dependent on available opportunities and my personal efforts. For my International Class students, I raised awareness of English use in jobs, for career advancement, and for a different “world” (or two).

So, for guest talks, I brought in recent TKK College graduates from Shanghai Disney Resort (a foreign company where English is used) and CHERY, a Chinese car manufacturer that uses English in business; I also invited a graduate from a master’s program at the University of Hong Kong (an English-medium program). I invited short talks by current students who attended the United Nations internship job fair in Beijing. I also invited a former TKK teacher, visiting from Texas, U.S., to share his experience visiting a recent TKK graduate who is doing a Ph.D. in

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taught in English.) This profoundly relates to the “air” discussion; the selection of teaching language (English vs Chinese) determines contents, and vice versa.

15 I raised the question to myself, since webpages and apps translatit e English quickly to Chinese, why do you need to memorize words? Tentative answer: Well, you should recognize the words.

computer science at Texas Tech University. I imbued “career aspirations” throughout, from time to time. Some students might get tired or feel overwhelmed by such high expectations; no matter, I took the chance.

The practice corresponds to the non-cognitive and non-linguistic factors (see, for example, Tang & Curtis, 2025) often discussed in CLIL literature, such as students’ motivation, self-perception/belief, or self-efficacy relating to academic performance. I think I went even a bit beyond that, as my efforts on the premise of career aspirations transformed students’ self-image.

Macroeconomics teaching, in response to timely news and events, needs media inputs. Although this was clearly not language training, I brought in the “air”, whether Chinese or English. For one, students might be put off by technical macroeconomic English expressions, while Chinese events are better understood, and perhaps can only be understood, in Chinese. Here my niche as a Chinese native speaker shone (a lesson for native-speaker-turned-EMI teachers). So, I used WallStreetCN (Chinese outlet) and Marketplace radio (English); both languages, through news articles and the textbook, provided analytical, professional content in context. We discussed news articles (the professional content) much more in Chinese (rarely in English), which allowed me to enrich the “soil” (students).

But I asked for volunteer oral presentations about the news articles, in English (extra 1 semester point each time). Low-level students simply read the English article word by word (to correct their stress, pronunciation, and presentation flaws) in front of the class; whereas high-level students would explain the Chinese or English articles in their own words, in English.

English oral training was a key feature of my content course. I told students that most of the time what people notice is their spoken English. Aside from the above impromptu oral practices, I assigned a Team Report (6 semester points). The purpose was to teach them “professional speech” in macroeconomics and finance. Students reported on Box Articles in the textbook. They prepared PPT slides and worked on the content, but more important was how they spoke. It was different from the usual class presentations in EMI courses; the Team Report had a stronger language focus.

As a team, one, two, or all of them could come up, by choice, and I encouraged each student to speak with one additional semester point. Then I advised them on how to speak professionally based on their individual performance. Several were fluent in English but did not speak in a professional way. For weaker students, I advised them on the basics of improving their spoken English. If someone was not confident, or simply had no time to do it, I would just let it go. L2 English language acquisition is usually linked to students’ personal identity (see, for example, Majchrzak, 2024); I did not want to cause harm.

Compared with individual oral exercises (simply reading the news script or a self-prepared translation), the organized team’s efforts helped students build rapport. But the systemic installment took (too many) precious class hours, while fellow students paid only tentative attention, if any, to speakers on stage. The only person obliged to listen was me, the teacher.

(Nonetheless, they could learn, since I spoke to the whole class as I gave advice.) This one major drawback leads me to ponder cutting this in the second semester, since students have been advised on how to improve professional speech. Further, the teacher needs to think on their feet and judge on the spot; it causes tension and adds pressure. While the teacher would improve with experience, I certainly do not think most content teachers are capable (but it is worth trying).[16]

Two in-class content exams were installed, each for 15 semester points (the total was 30). I gave exams on the test bank (obtained from the textbook publisher; answers provided) I abbreviated and used the same (English) questions. Aside from being a bit lazy (cost-benefit analysis), I wanted students to do exactly what English native speakers would be tested on. I liked to say to them, NYU (New York University) undergraduates would have done the same questions as you did, and several native speakers would fail the exam.[17]

The exam questions were “analytical” enough, and I even encouraged students to memorize them, so they would read and become familiar with analytical, long (macroeconomics) English sentences. The final exam used the same test bank. Essentially, they studied the same material three times (though it was a large set for non-native speakers) and did homework on it. Even though I dreaded that everyone would score 100 points, it never happened. I knew that several leading students would get tired of the repetition, so I advised them in advance that, for the semester grade, they were done and could focus on other courses. (They could always find additional macroeconomics materials to study.)

Table 1. Course Semester Points Allocation (Total 100)

Item	Semester points
Attendance	10
Vocabulary Quizzes (Two)	14
Team Report	6
Homework (Three Parts)	10
In-Class Exams (Two)	30
Final Exam	30

The final exam (30 semester points) accounted for only half of the 60 points in the Chinese-taught macroeconomics course, because I intentionally allocated points to vocabulary and oral skills. Given this language focus, I also tried to reduce grade pressure while students dealt with English-learning challenges. Moreover, attendance (10 semester points) was somewhat “strict”, as I read the names aloud in each class. The three homework assignments (10 semester points) were easy points; students received the points simply by turning them in.

16 With the help of language teachers, teacher’s training session could address this.

17 Mentioning NYU helps, since most mainland Chinese students interested in English are aware of NYU Shanghai as an elite institution

I had taught Chinese-taught macroeconomics at TKK College for several years, so I understood the differences between International Class and domestic students. International Class students were generally more motivated and academically stronger, somewhat like an Honors Class. This raised a fairness issue in grading, since a low-scoring student in this class might perform well in a regular Chinese-taught class. Students might also drop out to protect their GPA or avoid the demands of EMI. Thus, the grade distribution needed to be somewhat higher. As a side note, Chinese college students generally take many courses, so workload was also an issue.

From the content teacher's perspective, English sentences in oral presentations and class teaching need to be short; however, students should also be exposed to analytical content (often in longer sentences). Exam-driven repetition using test banks encourages students to read these analytical sentences repeatedly and thus develop a sense of the macroeconomic "context." This leads to my discussion of "corpus" and "analytical as interesting", with reading as an essential component.

Not Fit For "Corpus"

Not pitting one side against the other, I want to raise the issue of "corpus" (a large collection of sampled electronic texts processed for linguistic purposes). I believe that language teachers would see the problem, and content teachers would see the point.[18] I am certainly not against corpus linguistics, as I see corpus as useful at a different level. Similarly, in computing, some people do the coding, while I use MS Word for text editing; for me, its use has to be practical.

Usually, a content course aims to teach students "the content", be it English- or Chinese-taught. For a content teacher, content has to be analytical to "make the grade"; analytical content encourages people to think and ask "why", making it interesting. Thus, "analytical as interesting" is a basis for a content course.

By chance, I taught a "Financial English" undergraduate course for a semester in the early 2010s at Shih Chien University, Taipei. The course was required to improve finance students' English ability, with the stated purpose of "language learning". But I found that I was not well prepared for it and struggled throughout the semester. One obvious reason was that I lacked training in English language teaching. (The course had previously been taught by trained language teachers and, as I recall, in Chinese.) All the same, as a content teacher, I found a "wired" world of finance language training.

Start with the textbook. As usual for an English for Specific Purposes (ESP) course, it was essentially a collection of articles on various financial topics, at times claimed to be based on "corpus" findings. The articles were largely unrelated, gathered under the broad label of "finance". To a finance content teacher, they offered vocabulary, sentences, and contexts, but

18 A language professional who teaches linguistics is a content teacher.

were not analytical or deep enough to be very interesting. I often lacked background knowledge to address some topics in professional depth. The range was simply too broad, and I could not go deeper into areas I did not “professionally” know. As a result, I found myself jumping across mostly unrelated topics and treating them superficially. This also raised a content teacher’s identity crisis in EMI: “Am I a language teacher?”

I would like to say more about the “Financial English” textbook. The now-defunct Cambridge International Certificate in Financial English had a carefully developed textbook (MacKenzie, 2008), but for finance learners, the CFA (Chartered Financial Analyst) Level I exam offers a stronger professional context. CFA also offers the more basic Investment Foundations Certificate for industry workers without formal finance training. English learning in such a professional, investment-focused context seems more persuasive.

“Financial English” textbooks often treat finance as a concrete subject, when it is actually an umbrella term covering many areas. A corpus-based selection may capture the label “finance” without providing sufficient depth. Banegas (2014) identifies three problems in CLIL textbooks: (1) weak alignment between subject content and L1 school curricula, (2) oversimplification of content, and (3) dominance of reading and lower-order thinking tasks. While I see greater value in reading at university level, the concerns about breadth and oversimplification also apply here.

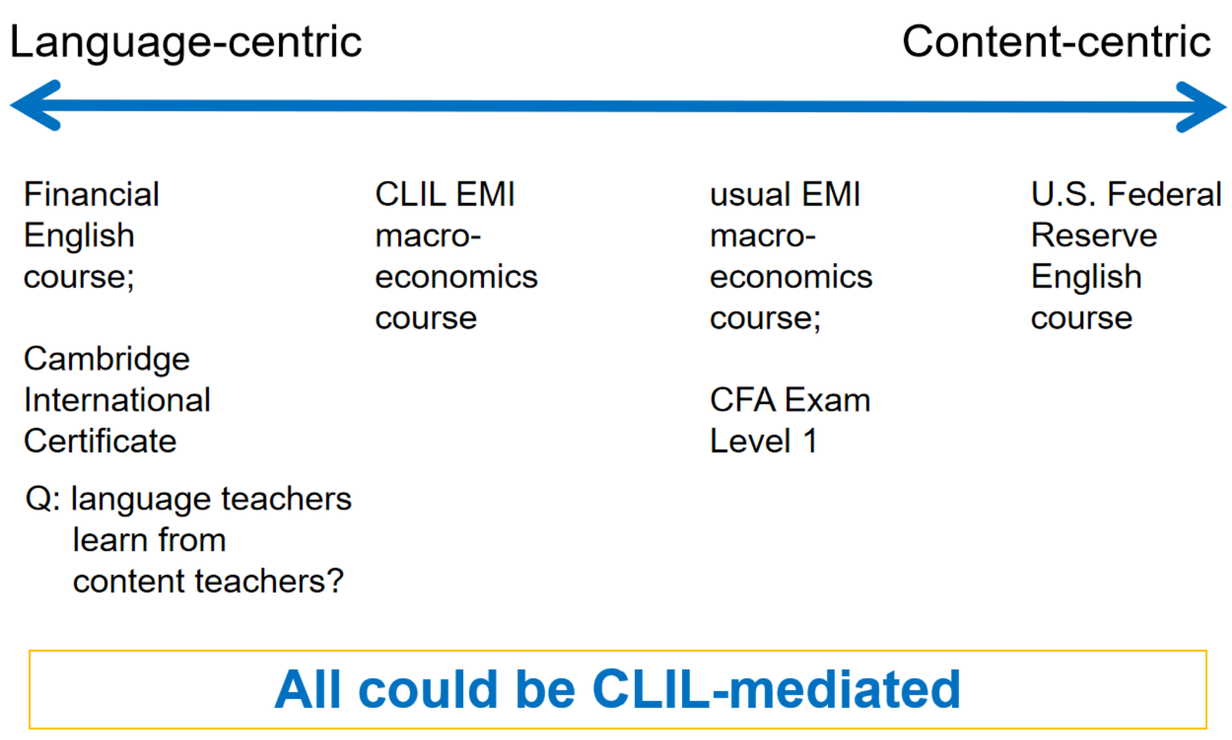
I followed the textbook but struggled with it. Later, through CLIL, I came to better understand the role of language teaching from a content teacher’s perspective. “Corpus” illustrates how language and content teachers may think differently. EMI content teachers using disciplinary textbooks and materials, such as Mankiw and Abel, Bernanke, and Croushore in my macroeconomics courses, may implicitly reject corpus-based textbooks in favor of professional depth. Professional content matters.

I admit that I know little about the “corpus” (could be a culprit) and textbook productions based on it, but I do think I have delineated the spirit of the argument. Language teachers serve the language-learning purpose and come with a language background. A content teacher (who is content-trained) may implicitly assume that language learning is boring, but it is only boring when “language” is taught by content teachers who lack training and awareness in teaching English. The undergraduate “Financial English” experience in Taipei certainly opened my eyes to the language “teaching” side of an EMI course.

Nonetheless, content teachers serve a content-training purpose and tend to be “analytical”. An EMI course that is too language-centric risks wasting the teacher’s professional expertise. That is why I experimented with “U.S. Federal Reserve English” (Fall 2017), a content-centric approach discussed earlier, using “real-world” finance materials (Conti-Brown, 2016). While CLIL often discusses collaboration from language to content, why not also have language teachers learn **content** from content teachers? “Analytical as interesting” may therefore also appeal to language teachers. Overall, however, an interesting teacher may matter more than an interesting textbook in a beginner EMI class, since many students find English textbooks daunting.

The diagram (Graph 1) shows the aforementioned courses and certificates along a language-content axis; all courses could be mediated through CLIL.

Graph 1. All Could Be CLIL-Mediated



Translanguaging the Practice

The “translanguaging” debate is unlikely to end, but our understanding will continue to develop through it (Flores & Snape, 2025). Nicoladis (2025) reminds us to consider the “goals” of translanguaging. I would argue that translanguaging is unavoidable and natural in an EMI content course, and that a content teacher should judge whether its outcomes are “analytical as interesting enough” for teaching purposes. Here I refer to pedagogical translanguaging, both in and out of the classroom, and present two examples from my course.

Scene 1

Let’s say I want to tell “a joke” to inspire my students and shape their self-perception. Using hand gestures, I place Tsinghua, China’s top university and a familiar reference for students, at a higher level and TKKC below. I then remind them that they are part of a selected group of 100 students out of approximately 2,500 business-related students admitted each year, and raise the lower hand closer to the higher one. The message is that, as a group, they are closer to the Tsinghua level than they may think.

Chinese students understand this quickly because it speaks directly to a world they know, particularly so soon after the college entrance exam. Telling it first in Chinese helps me catch their attention and communicate the message more directly. I may then repeat it in English, once the idea is already in place, allowing students to focus on the English expression as well. I use this tactic because I want to reshape, or reinforce, their self-perception and “career aspirations”. In this case, translanguaging serves not a disciplinary-content function, but a social and affective one (Genç et al., 2023).

Scene 2

I introduce the CSI 300 Stock Index futures, a financial derivatives product offered by the Shanghai Lujiazui陆家嘴-based (it conjures a high-end, elite finance image in Chinese) China Financial Futures Exchange, to my students. The product is based on the index compiled from 300 stocks traded at China's Shanghai and Shenzhen Exchanges, so it is the Chinese version of the S&P 500 stock index futures. This is a practical thing to know for my Chinese students, because they can see the market participants bet their money (win or lose) as China's central bank makes its way to influence the Chinese economy.

When I introduce this in Chinese, the Chinese-made content comes naturally, and students understand it quickly without me struggling to explain everything in English. I can also show how English-language macroeconomics knowledge is relevant in China, and then follow up with an English introduction to the financial product. Students thus learn English, but there is a drawback: my English version is usually weaker, takes longer, and may feel repetitive compared with the Chinese one. Students may even become less confident in my English ability when comparing the two versions. As a non-native English-speaking content teacher, I take the "soil" (students) into account and sometimes simply discuss Chinese-made content in Chinese rather than force a less "analytical as interesting" English version. In this case, translanguaging serves a pedagogical function, the other main function identified by Genç et al. (2023).

The English sentences I use also grow with students' ability, as the "soil" is cultivated: they become longer, more complex, and more analytical. Finding appropriate English expressions along the way is also a challenge for the content teacher. In the following section, I address translanguaging from a content teacher's perspective, using "analytical as interesting" as a guiding principle.

The Output Matters

A content teacher treats "translanguaging" as a black-box product, like ChatGPT (or Google Search), and he, as a product user, looks at the output; he may be satisfied, or not, then dive further. In my practice, the two-layered black box contains:[19]

Level 1: code-switching: two separate repertoires (one Chinese, one English);

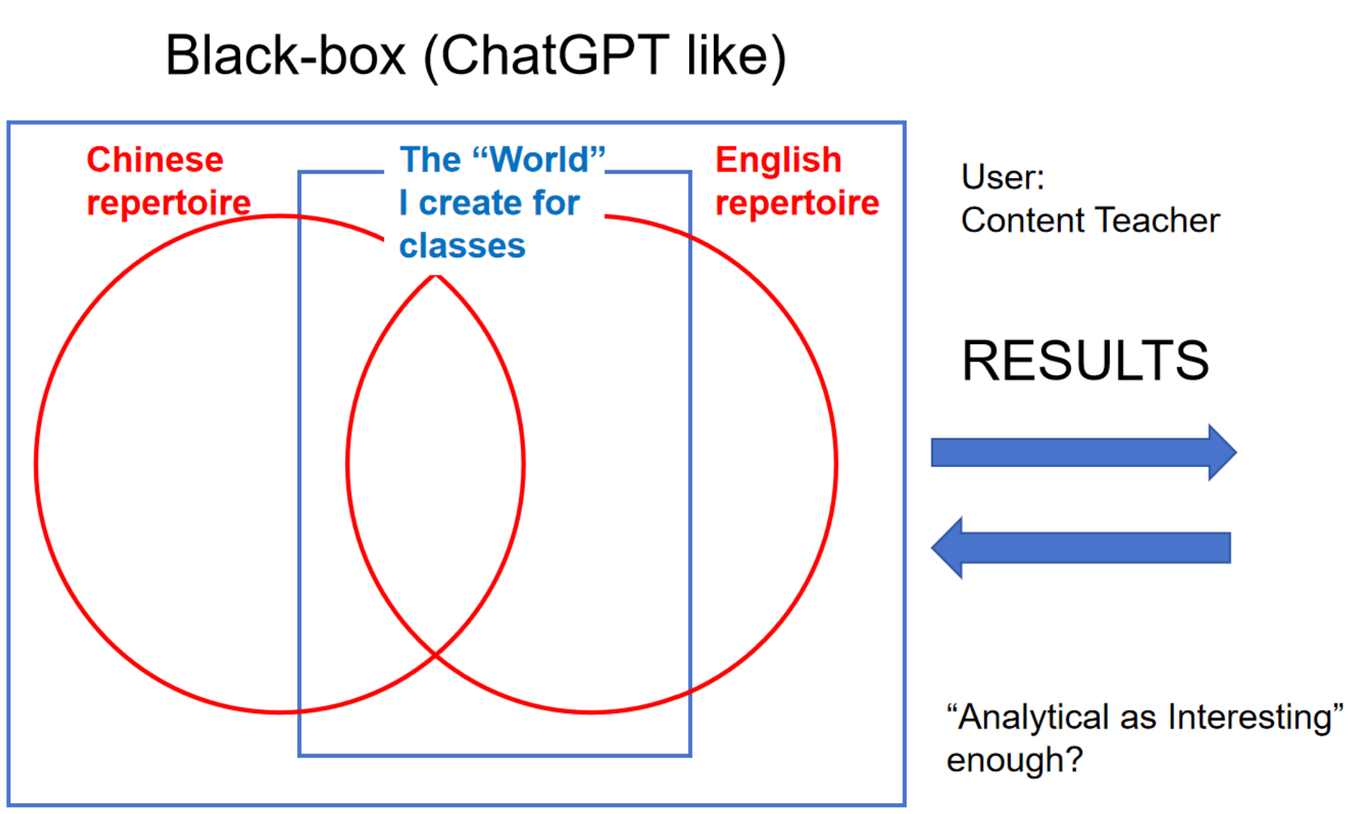
Level 2: real translanguaging: separate repertoires merge into an integrated one eventually (at some intersections).

Real translanguaging (level 2) takes time to develop, and a content teacher needs to be patient. I suspect that at times even three "worlds" (the English world, the mainland China Chinese-language world, and the Taiwan Chinese-language world) partially merge in my classes.

19 I recognize that debates around translanguaging, including whether it constitutes an integrated communication system, have important political and ideological implications for language policy, budgeting, and resource allocation. Here, however, my focus is classroom teaching. For a reconciliation of code-switching ("metaphor") and translanguaging ("metonymy"), and its implications for; ABLE (active bilingual learners of English) students in the U.S., see Przymus (2023).

Black-box “translanguaging” brings the “air” (Chinese and English content) into the “world” I create for my students; still, the “soil” (students) needs time to be cultivated and become ready.

Graph 2. Content Teacher’s Translanguaging Black-box.



Practicing teachers, whether content or language teachers, intuitively know that an integrated repertoire includes both linguistic and non-linguistic resources. Twenty years ago, when my English was weak and I taught native English speakers, I relied heavily on body language to convey my ideas. As my English improved, I needed it less.

Thus, it is more legitimate for a content teacher, for content-learning’s sake, to treat “translanguaging” as “the assemblage and orchestration of diverse means…(an) approach that focuses on the simultaneous management of multiple means of meaning- and sense- making, and includes the role played by such things as feeling, experience, history, memory, subjectivity, as well as ideology and power in (trans) languaging” (Li, 2022). Content teachers should employ all sorts of capacities and resources — “material, biological, semiotic, and cognitive properties and capacities in real-time as well as across different timescales” — to make a day.

Visuals, body language, stage acting, and emojis are our friends. At times, saying hello or something else in Chinese gets students’ attention in an EMI course. Some things, such as favorite songs, movie stars, or alumni news, are simply better expressed in Chinese. This helps the teacher enter students’ “Chinese world”, build rapport, reinforce “career aspirations”, or simply wake them up. The semester is long.

Create the Language Space

Following the spirit of “all teachers are language teachers”[20], all content courses are subject language courses, and all macroeconomics courses are macroeconomic language courses.

20 Valcke and Wilkinson (2017): “All teachers are not foreign language teachers, but all teachers use subject-specific and academic language to teach, and all students need academic language to assess and demonstrate learning. In this sense, it remains difficult, if not possible, to separate academic language from academic content.of using”

I would quickly add that with CLIL, my macroeconomics courses are also English language + macroeconomic language courses.

A content teacher uses languages to create a “world” (language space) in class, drawing on students’ “repertoires” (available resources), whether English-made, Chinese-made, video-made, gesture-made, or emoji-made. In EMI classes, I value the opportunity to bring the English-made world I know to students and show the value of using English in a Chinese-speaking environment when they find that “world” attractive.

For this purpose, I ask students to speak English with me throughout the year-long macroeconomics sequence, both in and out of class. This creates a space where oral and disciplinary English can grow, with the “plants” growing in the “air” and on the “soil”. I do not enforce the rule strictly at first, so as not to scare students away. In my experience, it takes about a month for some braver, better-prepared students to overcome the constraints of the Chinese-speaking environment, and another month for others to fully understand the expectation. Later, I may speak Chinese to them, but they are expected to reply in English. Many gradually become comfortable and confident with this practice.[21]

I may have misrepresented the language space with the metaphor of a “world”. For teaching, however, we try to understand our students’ worlds, including the Chinese-language worlds that form part of the “soil”. We draw on available resources (“repertoires”) to evoke and provoke meaning. This may involve code-switching between Chinese and English, or hybrid English-Chinese sentences, sometimes with emojis, all in the service of content teaching and language learning. In this way, we (re-)create a “world” in the classroom.

As a practicing content teacher, whether this should be called translanguaging at the micro, classroom level is less important to me. I aim to help students understand macroeconomics and support their meaning-making within their own “worlds”. For many issues concerning the Chinese economy, the available “analytical as interesting” materials are in Chinese. While I also work to improve students’ English, particularly their oral presentation skills, I often use Chinese to explain language-related issues because I myself learned English grammar and sentence structure through Chinese. Students understand these explanations immediately, whereas the English version may be less effective. This may represent a particular niche for Chinese native-speaker EMI teachers working with Chinese students. Ultimately, learning outcomes, both content and language, matter.[22]

21 When they are taught by English speaker who does not speak, Chinese, I suppose only several students would talk to the teacher — a lot, while others keep silent and make way through the semester. But of course it also depends on that teacher’s conscious efforts on bringing in students via the language side.

22 I leave out a school language policy discussion here. A policy (if there is one) being “stated”, people choose to follow, or not (perhaps comes with penalties). I prefer creative, organic growths in classes, when teachers (and students) are really aiming for “English”-mediated instructions.

Conclusion: Blow “Air” Into Classes

In this paper, I articulate the metaphor that an EMI course (“plants”) grows in the available teaching materials and resources (“air”), as the teacher cultivates students’ language ability and professional understanding (“soil”). I think the “soil” is more critical, whereas what a content teacher can do is to blow in the right “air” — in English or in other languages — that is “analytical as interesting”. Hopefully the “air” cultivates the “soil”; even though the link is not obvious, the “soil” (students) will improve along the way for sure.

In my version of content-and-language-integrated (CLIL) macroeconomics courses,

I would say my efforts in class are 40% language and 60% content. I use language scaffolding tactics which include paying attention to English pronunciation and stress, writing words/vocabulary on the blackboard, and reading oral recordings (of U.S. Marketplace radio professional content) into an online QQ group.

I think “translanguaging” should be judged by being “analytical as interesting” enough, or not. I draw macroeconomics content from textbooks and news media of both languages, and I expect the “air” to be “analytical as interesting” to students. For a practicing CLIL EMI teacher, “translanguaging” is the reality, at least when my macroeconomics courses are concerned. And this plays to niches of a bilingual English- and Chinese- teacher — just beware that they sink into Chinese traps, because it is much easier to communicate in the Chinese language with students. But as long as the content teacher aims to do the ‘E’ (in “English”-mediated instruction), they will see creative, organic growth in classes.

Even more important, though less visible, is the “career aspirations” aspect of cultivating the “soil” (students). EMI content courses should point to possible directions in which English may lead students. For instance, a subgroup of trade and international business majors will receive some exposure and training in United Nations public procurement next semester. Finance and accounting majors can more readily see the relevance of English macroeconomics and the CFA Level 1 exam. For students in business management, information systems, and marketing, the connections may be less obvious, so I occasionally refer to companies such as L’Oréal, P&G, and Dell, as well as the AI economy, to broaden their career imagination.

I feel that the language environment in mainland China is in some ways similar to **Brazil’s**, where a strong domestic language identity is also maintained. Policy differences aside, I think Chinese and Brazilian universities could learn from each other’s CLIL practices and EMI experiences.

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15. Translanguaging and Integrated Support in Two Brazilian EMI Courses

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Abstract: Institutions of higher education worldwide have witnessed transformations driven by internationalisation initiatives. Among the strategies adopted, English as a Medium of Instruction (EMI) has become increasingly central in various parts of the world. Brazilian EMI initiatives face challenges, for instance, because students' English proficiency levels vary significantly and systematic language support is rarely seen in this context. These conditions may limit the suitability of standard EMI models for the Brazilian context. Hence, this paper aims to examine the implementation of EMI in Brazil, with attention to translanguaging practices and the need for language support. Data were collected through interviews with two content teachers, and thematic analysis was conducted focusing on translanguaging practices. As a result, we found that translanguaging permeates EMI classrooms as a survival strategy, helping both teachers and students to communicate effectively. The findings also indicate that structured language support can reduce the linguistic burden placed on content teachers and foster students' participation and confidence. Based on these findings, we propose an Integrated Support Model as a more suitable alternative for the Brazilian EMI context, combining content instruction with context-sensitive language support

Key words: EMI, challenges, higher education, translanguaging, Brazilian context.

Introduction

The internationalisation of higher education (HE) has intensified the adoption of English as a Medium of Instruction (EMI) mainly in European and Asian contexts. However, the Latin American settings pose critical pedagogical and structural challenges. In Brazil, where English proficiency is uneven and access to linguistic resources is unequal (Baumvol & Sarmento, 2019), the implementation of traditional EMI models often reveals tensions between policy, pedagogy, and classroom realities. This paper argues that EMI cannot be implemented as a neutral or universal model but must be locally adapted. Therefore, this study examines how content teachers in two Brazilian EMI courses negotiate English-only expectations through translanguaging and what their practices and perceptions reveal about the need for integrated language support.

EMI and Translanguaging and Linguistic Support: Theoretical Aspects

In Brazil, EMI is a relatively recent and unevenly distributed phenomenon. Although an increasing number of HE institutions have incorporated courses taught in English as part of their internationalisation strategies, EMI is still largely concentrated in public universities, which are the country's main research-intensive institutions and consistently occupy the highest positions among Brazilian institutions in national and international HE rankings. It tends to occur more frequently in graduate programmes and short-term initiatives than in full degree programmes (Baumvol & Sarmento, 2016, 2019; Gimenez et al., 2018). The implementation of EMI has

been driven primarily by internationalisation-at-home[23] agendas and by efforts to increase the international visibility of Brazilian universities. However, its development is shaped by local constraints, including unequal access to English language education, heterogeneous student proficiency levels, limited institutional support, and the need for pedagogical approaches that are responsive to the Brazilian context (Baumvol & Sarmento, 2019; Gimenez et al., 2021). As a result, assumptions embedded in traditional EMI models, for example, the English-only approach, do not always align with the realities of Brazilian classrooms, prompting calls for more context-sensitive and multilingual approaches to EMI implementation (Gimenez et al., 2021).

EMI research has increasingly questioned monolingual assumptions that position English as the sole legitimate language of instruction, especially as studies on HE have shown that EMI classrooms are often shaped by multilingual practices rather than by English-only use (Lasagabaster, 2022). Drawing on multilingual perspectives, translanguaging has been proposed as an alternative lens for understanding language use in EMI classrooms. Rather than viewing languages as separate and bounded systems, translanguaging recognises that plurilingual speakers mobilise their entire linguistic and semiotic repertoires to construct meaning, negotiate understanding, and participate in academic activities (García & Li Wei, 2014; Li Wei, 2018; Canagarajah, 2013).

Within EMI contexts, translanguaging has been associated with several pedagogical benefits. Research suggests that the strategic use of students' and teachers' additional languages can support content comprehension, facilitate the co-construction of knowledge, and create opportunities for deeper cognitive engagement with disciplinary concepts (Van der Walt, 2013; Adamson & Fujimoto-Adamson, 2021). Translanguaging practices may also contribute to more inclusive learning environments by reducing linguistic anxiety, increasing participation, and legitimising students' multilingual identities (García, 2009; Yuan & Yang, 2023).

In practice, translanguaging may involve explaining complex concepts through multiple languages, discussing academic content in one language and reporting it in another, drawing connections between disciplinary terminology across languages, or combining verbal, visual, and other semiotic resources to facilitate understanding (Li Wei, 2018; Yuan & Yang, 2023). These practices challenge the assumption that effective EMI necessarily requires an English-only classroom and instead position multilingualism as a pedagogical resource rather than a problem (Rose & Sahan, 2021; Drljača Margić & Molino, 2022). In the EMI context, Macaro (2018) notes that teachers switch languages especially when "managing the classroom, dealing with disruptive behaviour, ensuring the understanding of content, translating unknown lexical items, and dealing with a word the teacher did not know in English" (Macaro, 2018, p. 204).

This perspective may be even more relevant in contexts such as Brazil, where students often enter EMI courses with heterogeneous levels of English proficiency (Baumvol & Sarmento,

23 Internationalisation-at-home, according to Knight (2008), encompasses the integration of intercultural and international dimensions into teaching, research, and campus life, including the inclusion of foreign students and scholars, and extracurricular initiatives with local communities. It has emerged partly as an alternative to physical mobility across borders.

2019). At the same time, EMI classes in Brazil are generally composed mainly of Brazilian students who share Portuguese as their most comfortable language for interaction and meaning-making. In such settings, translanguaging can promote access and participation while sustaining engagement with disciplinary content.

EMI in Brazil has its own characteristics intrinsically connected to the context, as we discussed in this section, and the various types of Brazilian EMI may partially fit in the pedagogical EMI models proposed by Macaro (2018). He describes the four models as: the Multilingual Model, where L1 is used alongside English; the Concurrent Support Model, where supplementary language support is provided; the Preparatory Year Model, where students complete an English programme before EMI; and the Selection Model, where students pass a proficiency test before enrollment.

Methodology and context

This study[24] was conducted within the courses in the Minor in International Studies at UFMG, hereafter named as FTEI (*Formação Transversal em Estudos Internacionais da Universidade Federal de Minas Gerais*), a Brazilian public university located in the state of Minas Gerais. This programme represents an uncommon internationalisation-at-home initiative within the Brazilian HE context, integrating interdisciplinary, non-mandatory undergraduate courses fully taught in English. FTEI brings together students from diverse academic backgrounds and with heterogeneous levels of English proficiency. Although there are some isolated EMI initiatives in Brazil, as described by Baumvol & Sarmento (2016), FTEI represents an institutional programme that brings together courses taught from an international perspective (in English or Spanish) under a common framework. In this context, there is no formal language policy specifying English proficiency expectations for either students or content teachers. Students may enroll regardless of their linguistic background, and no minimum proficiency level is formally required for either group.

Data were collected from two undergraduate courses (Dentistry and Business Administration). The dataset comprised interviews with two content teachers, hereafter referred to as CT2[25] (Dentistry) and CT3[26] (Business Administration). At the time the research was conducted, CT2 had been a university professor for 13 years and had been using EMI for three years, having taught five EMI classes. CT3 had been a professor for 12 years and had been using EMI for six years, also having taught five EMI classes. Eleven students were enrolled in the Dentistry course and seven in the Business Administration course. Students self-reported heterogeneous levels of English proficiency. The data were generated in 2021, and the interviews were conducted in Portuguese and recorded via Zoom. The first author was also present in the classroom as a language support specialist throughout the semester. The interview data underwent inductive

24 This study draws on data collected as part of the author's doctoral dissertation (Costa e Cardoso, 2024).

25 CT2 stands for content teacher 2.

26 CT3 stands for content teacher 3.

thematic analysis, focusing on themes that emerged prominently during transcription. A total of six themes were identified, including translanguaging, the purpose of this paper. This research was approved by the Ethics Committee of UFMG[27], and all participants provided informed consent before data collection.

EMI, Translanguaging and Linguistic Support: Analysis

In this study, teachers primarily used L1 to support content comprehension, especially when students encountered unfamiliar vocabulary or when they hesitated to express themselves comfortably, as evidenced by CT2 in Excerpt 1:

Excerpt 1

> CT2: *If they want to speak, in this semester I said something I did not use to say before: if you want to speak in Portuguese, you may.* ***It breaks my heart, ok****? But I said it. I learned from Chris's class, so if they want to speak in Portuguese, they can.*

CT2, however, expresses his concerns and sadness when students choose Portuguese to express themselves. CT2's decision to allow Portuguese, even if reluctantly, reflects what García et al. (2023) call the freedom to use one's full communicative repertoire. However, his emotional reaction ("it breaks my heart") suggests that monolingual ideologies are still present, even when teachers begin to change their practice. CT2 has learned that L1 can help students feel more comfortable (Macaro, 2018), but this idea is still unsettling for him. CT2 gives the impression that he feels embarrassed when it happens, suggesting that some teachers may have (allegedly more successfully, according to his words) experienced English-only policies during their own language learning.

Although CT2 is expressing his feelings about language use in his classroom, CT3[28] considers the simultaneous use of both languages normal and natural, even perceiving it as a communicative skill developed by the students. When asked if his students would generally speak in English, he replied:

Excerpt 2

> CT3: *Wow! It depends! We can see everything inside my classroom. There were some students who only spoke in English (from the beginning to the end), others… One of my students spoke* ***PortuEnglish****! He would start speaking English, but whenever he didn't know a word, or what to say, he would deliberately add a word in Portuguese, and then he would just move on, as if nothing has happened!*

CT3 accepts translanguaging in his classroom, creating a safe environment for effective communication. This practice aligns with the phenomenon illustrated by Garcia and Wei's (2014) concept of a translanguaging space, where multilingual individuals can integrate social spaces.

27 CAAE: 51723021.6.0000.5149

28 CT3 stands for Content Teacher 3

These issues are not only about student behaviour, but about how teachers position themselves in relation to English. As we can see from extracts 3 and 4 below, CT3 understands that in an EMI class, the main goal is not to teach English, but rather to use English as a tool to convey the content.

Excerpt 3

CT3: “**It is not an English class**... I teach **in English**. I use English.”

Excerpt 4

CT3: What really stuck with me was this: **letting go of the idea that English has to be perfect.**

The perception that content teachers have of their own role in an EMI classroom moves away from linguistic purism toward communicative effectiveness is a reflection of what Baumvol et al. (2024) have stated: “proficiency in academic English is a privilege of a few students whose families can afford paying for English classes in the private sector or even abroad” (p. 256). EMI classes represent an opportunity for both content teachers and students to use the English language, contextualising it to their professional environment. It is, however, a complex challenge because content teachers carry an enormous responsibility, which very often lacks the conditions to fulfil it. In this sense, translanguaging permeates an EMI class in both speaking and, often, writing (for activities and tests). Teachers end up doing what is best for them in that specific class and with that group of students. Translanguaging is a survival strategy for content teachers delivering lessons using EMI.

In this research, although the first author acted as the language specialist in both courses, the nature of her involvement differed across contexts. In the Business Administration course, she worked collaboratively with the content professor as a participant observer. Following a needs analysis, she compiled a corpus, generated a vocabulary frequency list, and co-designed the lesson plan with the professor. Together, Emmanuelle and the content teacher planned the English-language activities, their timing, and their pedagogical objectives. As a result, the language component was fully integrated into the course and its regular classroom practices.

In contrast, her role in the Dentistry course was primarily observational. Although a needs analysis was also conducted and a corpus was compiled to generate a vocabulary frequency list, her contribution was limited to developing vocabulary-focused activities that were made available to students on an optional basis. The implementation of these activities was therefore less integrated into the course structure and depended on students’ individual engagement. Despite this situation, CT2 clearly regards the language support given to students in extra classes as quite a valuable endeavour, contributing to creating a rather positive course environment.

Excerpt 5

CT2: ...what I actually perceive is... **the presence and care regarding the language issue**; having a person providing this kind of course support makes the students feel cared for.

CT3 also recognizes the importance of language support but goes beyond CT2's observations. By inviting the researcher to collaborate, he also positions her as a tutor who can provide students with the language support that he does not feel prepared to offer.

Excerpt 6

> *CT3: ... Besides giving the teacher offering the course a greater sense of confidence, as in my case,* ***you also end up being a tutor to some extent,*** *a person who provides support for me, for example. And for the student, it reconciles these things, right? They reconcile these things, right? They will see something from the area,* ***specific to administration in my case,*** *but they'll also have a greater chance of being able to do something denser,* ***from a language point of view,*** *on that basis,* ***based on the area that interests him or her, which I wouldn't be able to do on my own.***

In order to lessen the content teachers' burden in their classroom, the support works well for both sides; such collaboration allows the content teachers to create their classes considering language nuances, keeps the focus of the teacher on the content, and helps students to also speak more confidently. The partnership between CT3 and the researcher reinforces the value of discipline-specific learning materials for EMI, as Wingate and Hakim (2022) have observed, in response to the new demands of EMI.

Considering the demands placed on content teachers, the findings suggest that an integrated support model may offer a more context-sensitive alternative to traditional EMI implementation in this setting. The activities developed for each course differed significantly, as they were based on each course's corpora and needs analysis. For instance, in the Business Administration course, students were provided with discipline-specific vocabulary activities, such as an exercise on graph trend language, teaching expressions such as 'to rise', 'to decline', 'to peak', which were then applied to graphs from their own course content. See below an example of one of the activities proposed:

Analysing a graph trend:

To rise / a rise. to fall / a fall to decrease / a decrease to increase / an increase to drop / a drop to dip / a dip to decline / a decline to peak / a peak	
To go up	To go down

After that, students should compare and discuss the graphs from their material.

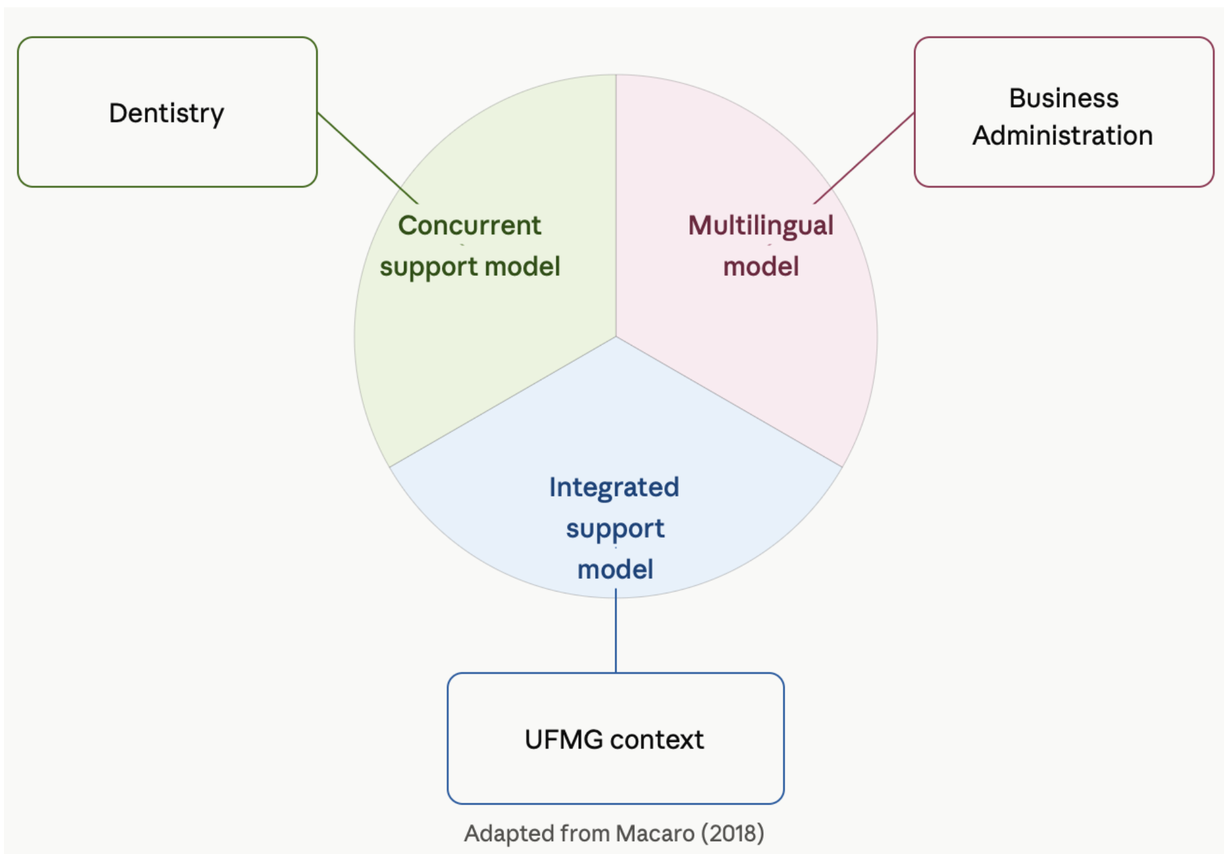
Such an activity illustrates how language support was embedded within the disciplinary content, rather than offered as a generic or detached resource.

Regarding Macaro's framework, mentioned in section 2, the Business Administration course, conducted by CT3, most closely resembled the multilingual model, as translanguaging was encouraged throughout the course. Classes were conducted in English, while students were free to interact and respond in either Portuguese or English, according to their level of comfort and proficiency.

The Dentistry course, led by CT2, in turn, shared characteristics with the concurrent support model. Language support was available during the period in which the course took place; however, it was not embedded within classroom instruction. Instead, students could access English-language activities as an additional resource outside class time and engage with them voluntarily.

While Macaro's framework provides a useful lens for understanding these different configurations, our findings suggest the need for a more integrated support model. Unlike the forms of language support described in the existing framework, the support provided in this study was not generic or detached from disciplinary content. Rather, it was specifically designed around the lecturers' teaching materials and the linguistic demands of each course and each class. Through corpus compilation and frequency analyses, language support was tailored to the disciplinary context, ensuring that activities addressed the vocabulary, genres, and communicative practices most relevant to students' academic needs. In this sense, language support became an integral component of course design rather than a parallel or supplementary resource. The figure below summarises what occurred in our research context, suggesting that an integrated model should prevail in our context.

Figure 1. EMI Models in the Two Courses and the UFMG Context



The value of this integrated support model is further evidenced by the teachers' own words, with CT2 and CT3 acknowledging the importance of having a language specialist present in the classroom.

Conclusions

This small-scale case study shows that EMI in the two courses did not operate through an English-only approach. Portuguese was used when students needed lexical or conceptual support and when using English limited their ability to participate. The two teachers, however,

positioned this flexible language use differently. While one allowed Portuguese reluctantly, revealing a tension between monolingual expectations and classroom needs, the other regarded the use of both languages as a legitimate communicative resource. These findings suggest that translanguaging should not be understood simply as a departure from EMI, but as a context-responsive practice that can support access to disciplinary content and participation in linguistically heterogeneous classrooms.

The findings also indicate that responsibility for addressing language-related demands cannot rest solely with content teachers. The teachers' accounts of collaborative support, including assistance with language-sensitive planning, materials, and student participation, point to the potential of an integrated support model for this context. Rather than treating Portuguese as a threat to EMI or expecting teachers and students to conform to an unassisted English-only model, this approach acknowledges the linguistic resources already present in the classroom.

Because the study involved only two courses and two teachers, these findings should be understood as context-specific rather than generalisable. Further research is needed to examine how integrated support and translanguaging affect students' participation, content learning, and engagement with English across disciplines. More broadly, EMI initiatives in Brazil need explicit, context-sensitive language policies and sustained institutional support for both teachers and students.

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16. Fostering Terminological Autonomy Through a Student-Constructed Glossary in EMI-Oriented Higher Education

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Abstract: The internationalization of higher education intensified reliance on English as the principal medium for accessing disciplinary knowledge, particularly in contexts where English is not the primary language of instruction. Among the structural challenges faced by students in such settings, the comprehension and productive mobilization of disciplinary terminology in research articles remains central to epistemic participation. This paper proposes and analyzes a pedagogical lexicographic tool designed to mediate the integration of disciplinary content and academic English within an EMI-oriented higher education context. Grounded in the Communicative Theory of Terminology (Cabré, 1999, 2003) and the Functional Theory of Lexicography (Bergenholtz & Tarp, 2003; Tarp, 2008; Fuertes-Olivera & Tarp, 2014), the tool is operationalized through a collaboratively constructed, user-oriented digital glossary implemented within an English for Academic Purposes course at a Brazilian university. Qualitative and descriptive quantitative analysis of 120 terminological entries produced by 60 undergraduate students reveals, through iterative comparison between initial and revised versions of the entries, progressive shifts from translation-based definitional strategies toward the production of contextually anchored and conceptually delimited terminological entries. The preliminary findings demonstrate that the structured process of glossary construction and validation enables students to internalize procedural strategies for identifying, delimiting, and interpreting disciplinary terminology.

Keywords: English-medium instruction (EMI), disciplinary literacy, terminology, functional lexicography.

Introduction

The internationalization of higher education has been widely described as the systematic integration of global and intercultural dimensions into institutional missions, curricula, and research practices (Knight, 2008). While internationalization encompasses mobility, collaboration, and curricular reform, its operationalization in research-intensive universities has become inseparable from the predominance of English as the language of academic circulation. Scholarly publishing, international conferences, grant applications, and citation networks are predominantly mediated through English (Royal Society, 2011).

This linguistic centralization, however, generates asymmetrical participation conditions. Amano et al. (2016) demonstrate that researchers who do not have English as a first language invest significantly more time in reading and writing academic texts. In subsequent research, Amano et al. (2023) further identify structural disadvantages affecting publication success, peer-review interaction, and citation visibility. These asymmetries are not reducible to general language proficiency; they are epistemic in nature. Limited control over discipline-specific terminology constrains conceptual articulation and scholarly positioning.

Within undergraduate education, similar patterns emerge. Studies conducted in Brazilian public universities (Bergoli et al., 2022; Dantas-Lunn & Ferreira, 2019) reveal that students frequently report difficulty in interpreting specialized lexical items embedded in research articles. This

suggests that terminology functions as a gatekeeping mechanism; without access to specialized conceptual vocabulary, students' engagement with disciplinary texts remains superficial, even when general linguistic comprehension is adequate.

In EMI-oriented contexts, where English mediates access to disciplinary knowledge rather than serving as the object of instruction itself, the integration of content and language becomes a pedagogical imperative. Integrating Content and Language in Higher Education (ICLHE) scholarship emphasizes that disciplinary literacy cannot be separated from linguistic mediation. Academic participation requires simultaneous negotiation of conceptual content and linguistic form. Terminology, therefore, becomes a central site of integration.

The present study examines the development and implementation of a student-constructed bilingual online glossary embedded in an English for Academic Purposes (EAP) course at a public university in Brazil. The glossary evolved from a discipline-specific initiative into a cross-disciplinary digital platform integrated into a virtual learning environment. Unlike conventional glossaries, it was designed as an epistemic mediation mechanism structured around contextual activation, disciplinary tagging, and iterative validation.

The guiding research question is how the collaborative construction of terminological entries can contribute to the integration of content and language in EMI-oriented higher education. Rather than treating terminology as vocabulary acquisition, this study conceptualizes glossary construction as a discursive and epistemic practice situated within academic literacy development.

Theoretical Rationale for a User-Oriented Model of Terminological Mediation

This study is grounded in the articulation between the Communicative Theory of Terminology and the Functional Theory of Lexicography, two frameworks that converge in their rejection of essentialist views of language and in their emphasis on use, context, and user needs as central parameters for the description and organization of specialized lexical knowledge. This convergence is particularly productive for the design of terminological resources intended to support academic reading in English within internationalized higher education, since it shifts the analytic focus from lexical equivalence to epistemic access: that is, to the conditions under which learners can interpret disciplinary meaning as it is instantiated in texts, genres, and communicative situations.

From the perspective of the Communicative Theory of Terminology, Cabré's (1999, 2003) reconceptualization of the term is foundational. Rather than treating terminological units as stable lexical entities inherently tied to closed domains, Cabré proposes a dynamic view in which a term emerges through the interaction of cognitive, linguistic, and communicative dimensions. In this framework, terminological status is not an intrinsic property of a lexical form but the result of activation: a lexical unit acquires specialized value when it is mobilized in a concrete communicative situation and framed by disciplinary knowledge. This move has

direct implications for terminological resources intended for learners. If specialized meaning is activated in discourse, then decontextualized definitions—however accurate in isolation—may fail to represent how disciplinary concepts are actually constructed and negotiated in academic texts. For this reason, context cannot be treated as ancillary, illustrative, or optional. It becomes constitutive of terminological meaning and must therefore be represented in the architecture of the resource.

This communicative orientation also provides a principled rationale for the inclusion of contextual excerpts in glossary entries. Extracts drawn from authentic research articles do not merely exemplify usage; they function as epistemic anchors that expose the discursive conditions under which a lexical form activates specialized meaning. In pedagogical terms, this design principle supports learners in recognizing that disciplinary concepts are not accessed through simple substitution but through contextual interpretation. Pearson's (1998) work strengthens this point by showing that meaning discrimination often depends on co-textual and pragmatic cues and that terms may exhibit polysemy across disciplines. In cross-disciplinary educational settings, such variation is not marginal: the same lexical unit may participate in different conceptual systems and acquire distinct contours depending on the field, the genre, or the theoretical framing. A pedagogical terminological resource must therefore include mechanisms that help users discriminate meaning in context rather than assume terminological universality.

While communicative terminology foregrounds contextual activation and disciplinary framing, the Functional Theory of Lexicography provides the complementary design logic required to translate these principles into a usable digital tool. Developed in particular by Bergenholtz and Tarp (2003) and later elaborated by Fuertes-Olivera and Tarp (2009, 2014), functional lexicography conceives lexicographic products as utilitarian instruments whose value is measured by their capacity to satisfy specific human needs in concrete consultation situations. The central question shifts from "what should a glossary contain?" to "who consults the glossary, in which situations, and for which purposes?". This user- and situation-oriented stance implies that lexicographic decisions — lemma selection, entry structure, information prioritization, and interface organization — must be derived from an explicit analysis of recurrent consultation scenarios rather than from abstract linguistic criteria.

In the context addressed here, the primary consultation scenario is interpretative and cognitive: undergraduate students reading peer-reviewed research articles in English while attempting to access disciplinary content. Their needs are therefore not predominantly translational. They involve conceptual clarification, delimitation of meaning, and recognition of disciplinary scope so that specialized units can be interpreted accurately within the text. This functional diagnosis has consequences for the design of entries. If the consultation situation is reading-based and meaning-discriminative, entries cannot be organized primarily around bilingual equivalence. Instead, they must foreground contextualization, conceptual explanation, and signals that guide users toward appropriate interpretation. Framed in this way, functional lexicography also offers explicit justification for usability-driven decisions in digital environments. Accessibility, clarity, and

efficiency are not simply aesthetic preferences but functional requirements aimed at reducing cognitive load and enabling rapid retrieval of relevant information. In other words, information architecture becomes part of the lexicographic argument: the interface itself participates in satisfying user needs.

When these two theoretical frameworks are articulated, a coherent rationale emerges for conceiving a glossary as a model of terminological mediation rather than a static lexical repository. Communicative terminology establishes why specialized meaning must be treated as contextual and discipline-bound; functional lexicography establishes how such meaning should be organized and presented so that users can retrieve it effectively in real consultation situations. This convergence also legitimizes design decisions that are frequently treated as merely technical. Disciplinary tagging, for example, is not a metadata add-on but a mechanism for representing conceptual variability across fields and preventing misinterpretation of polysemous lexical forms. Similarly, requiring source citation is not merely an academic convention; it supports epistemic reliability and aligns the resource with the practices of knowledge construction in higher education. Most importantly, a structured validation workflow — through which entries are revised, reformulated, and approved — operates both as a quality-control mechanism and as a pedagogical dispositif that makes conceptual delimitation visible and negotiable. In functional terms, validation ensures that the glossary remains a dependable consultation tool; in communicative terms, it reinforces that terminological value is accountable to discourse evidence and disciplinary framing.

Taken together, these principles provide the theoretical basis for understanding the glossary examined in this study as a pedagogical lexicographic model whose design has been iteratively refined over time. The developments described in the subsequent section—the institutional trajectory from earlier prototypes to the current digital implementation—should therefore be read not as a chronological narrative of technological upgrades but as successive attempts to operationalize communicative and functional principles under authentic conditions of use. The historical evolution becomes analytically relevant precisely because it documents how theoretical commitments were progressively translated into design choices that respond to real consultation situations in internationalized higher education.

Institutional Trajectory of the Glossary

The glossary examined in this study is the outcome of a long-term process of pedagogical experimentation, theoretical consolidation, and institutional refinement. Its current configuration within the LÚMINA Idiomas Virtual Learning Environment represents the most recent stage of a trajectory initiated more than twenty years ago, when terminological mediation first emerged as a central pedagogical concern in English courses for undergraduate students engaged in reading academic texts in their disciplinary fields.

The earliest phase of this trajectory was marked by the creation of the Glossary of International Relations (GLOSSIR), a bilingual terminological repertory developed to support students encountering research articles in English within the field of International Relations. At that time, the glossary functioned as a targeted pedagogical intervention responding to a recurrent classroom pattern. Students frequently relied on bilingual dictionaries and automatic translation tools when faced with unfamiliar lexical items. Although such tools provided immediate equivalents, they rarely offered sufficient information to clarify conceptual scope, disciplinary framing, or contextual usage. The interpretative difficulties observed were not primarily lexical but epistemic. Students often identified a translation but remained uncertain about the conceptual boundaries of the term within academic discourse.

GLOSSIR was initially conceived as an attempt to address this gap by foregrounding contextualized definitions and disciplinary anchoring. Even in its early configuration, the glossary departed from purely equivalence-based models by incorporating definitional reformulation and field delimitation. Its construction and pedagogical implementation were documented in Bocorny et al. (2011), who described the development of a collaborative bilingual online glossary based on a specialized corpus in International Relations. That study articulated corpus-based term extraction procedures with pedagogical objectives, marking an early effort to align terminological work with empirical linguistic evidence.

Subsequently, Kilian et al. (2012) examined the criteria for term selection adopted in the construction of the glossary, discussing methodological parameters for corpus-based pedagogical glossaries. This phase represented a shift from primarily practice-driven development toward explicit methodological reflection. The discussion of inclusion criteria, corpus evidence, and disciplinary delimitation clarified the need for systematic procedures guiding term selection and entry structure. At this stage, however, the theoretical articulation with terminology theory and lexicographic theory was still developing and had not yet been fully consolidated.

A further stage in this trajectory is documented in Bocorny and Kilian (2017), who examined the theoretical and contextual premises underlying the creation of an online, user-friendly, open-access platform with multimedia resources in a Brazilian university. This phase expanded the scope of the glossary beyond a single disciplinary domain and introduced concerns related to usability, digital affordances, and information architecture. The glossary began to move from a discipline-bound corpus-based repertory toward a more scalable digital resource embedded within an institutional learning environment.

The second major phase of conceptual consolidation coincided with deeper engagement with the Communicative Theory of Terminology and the Function Theory of Lexicography. The theoretical insights derived from Cabré's communicative model and from the user-oriented principles articulated by Bergenholtz, Tarp, and Fuertes-Olivera began to inform design decisions more explicitly and systematically.

From the perspective of communicative terminology, the glossary progressively adopted the principle that terminological value is activated within concrete communicative situations.

This theoretical shift justified the systematic inclusion of authentic contextual excerpts extracted from peer-reviewed research articles. Definitions were reformulated to emphasize conceptual delimitation rather than lexical paraphrase, and disciplinary classification became a structural feature of entries. Phenomena such as polysemy, conceptual variation, and denominative multiplicity were no longer treated as irregularities to be minimized but as inherent characteristics of specialized discourse requiring explicit representation.

Simultaneously, the Function Theory of Lexicography prompted a more rigorous identification of user profiles and consultation scenarios. Undergraduate students reading research articles in English were defined as the primary users, and their predominant needs were interpreted as cognitive and interpretative rather than translational. This diagnosis justified prioritizing contextual anchoring, conceptual clarification, and reliable source identification over exhaustive lexical or grammatical information. Entry structure was reorganized to foreground the data most directly relevant to reading comprehension in academic contexts. The glossary increasingly assumed the characteristics of a user-oriented consultation tool designed to reduce cognitive load and facilitate efficient retrieval of specialized information in digitally mediated environments.

The transition to the LÚMINA Idiomas platform marked a third and more structurally significant stage in the glossary's institutional consolidation. This phase required the reconfiguration of information architecture to accommodate multiple disciplinary domains within a single digital environment. The redesign process was conducted in collaboration with design professionals, ensuring coherence between theoretical principles and interface implementation. Decisions concerning layout, navigation, and data prioritization were informed by principles derived from the Function Theory of Lexicography, particularly those related to clarity, accessibility, and user efficiency. The resulting architecture foregrounded contextual excerpts, definitional reformulation in English, Portuguese equivalents, source identification, and disciplinary tagging in a structured and visually coherent format.

An additional dimension introduced during this stage was the formalization of a collaborative validation workflow. Whereas earlier versions were curated primarily by instructors, the redesigned glossary incorporated structured student participation in the production of terminological entries. This procedural transformation repositioned the glossary as a collaborative academic environment rather than a static repository. Students became contributors whose entries underwent systematic review and revision before validation. The validation process made explicit the criteria of contextual anchoring, conceptual delimitation, disciplinary adequacy, and source reliability derived from the theoretical frameworks guiding the project. Over time, this iterative procedure contributed to stabilizing the glossary's design principles and consolidating institutional practices surrounding its pedagogical use.

Across successive cohorts, refinements were introduced in response to observed patterns of student performance and consultation behavior. Entry templates were clarified, disciplinary tagging mechanisms were expanded, and revision guidelines were made more explicit. Each modification was theoretically grounded. The inclusion of contextual excerpts responded

directly to the communicative principle that terminological status is activated in discourse. The prioritization of user-relevant data reflected functional lexicographic orientation toward concrete consultation needs. The validation workflow embodied both theoretical commitments by ensuring that terminological entries were evaluated in relation to contextual evidence and user utility.

This study focuses on a specific empirical moment within this broader trajectory: the implementation of the redesigned glossary with undergraduate students enrolled in an EAP course at a public Brazilian university. This phase corresponds to the systematic application of the collaboratively constructed glossary model within an authentic instructional setting, generating the corpus of terminological entries analyzed in subsequent sections. By situating the empirical investigation within this long-term institutional process, the glossary can be understood not as an isolated pedagogical innovation but as the progressively refined operationalization of communicative and functional principles in digital terminological mediation.

The historical development outlined here demonstrates that the current version of the glossary reflects cumulative theoretical deepening, methodological refinement, and institutional consolidation. Design decisions are therefore neither incidental nor purely technological. They represent the stabilization of a pedagogical lexicographic model grounded in sustained engagement with terminology theory, user-oriented lexicography, and corpus-based practice, adapted to the demands of internationalized higher education and digitally mediated academic reading.

Rather than revisiting earlier phases of development, the focus here lies on examining how the redesigned model operates in an authentic instructional context in which undergraduate students actively construct and revise terminological entries while engaging with disciplinary research articles in English. Accordingly, this paper aims to present and analyze the implementation of a pedagogically grounded lexicographic model of terminological mediation within a structured EAP syllabus. The glossary is examined as one component of a broader instructional sequence that includes explicit discussion of the concept of term, guided consultation strategies, contextual extraction from research articles, and iterative instructor validation. The empirical analysis focuses on the comparison between initial and revised terminological entries produced by students, interpreting observed shifts in definitional structure and contextual anchoring as indicators of how the course design mediates disciplinary literacy development.

Nature of the Study

This study adopts a qualitative, design-based pedagogical intervention framework situated within an authentic instructional context. Rather than examining naturally occurring classroom discourse, the research is grounded in the intentional design, implementation, and iterative refinement of a terminological mediation tool embedded in an EAP course. The glossary is treated not as a peripheral instructional activity but as a deliberately constructed epistemic instrument designed to mediate students' engagement with disciplinary discourse in English.

In this sense, the project aligns with traditions in educational linguistics and applied linguistics that conceptualize pedagogical artifacts as legitimate objects of inquiry when they are theoretically grounded and systematically evaluated within real teaching environments. The methodological stance is interpretive and explanatory rather than experimental. The study does not seek to isolate variables or measure statistically controlled learning gains. Instead, it examines how theoretically informed design principles are operationalized in practice and how observable discursive shifts emerge within a structured pedagogical ecology.

Instructional Context

The intervention was implemented during the first semester of 2025 in an online EAP course offered as an elective to undergraduate students from multiple disciplinary areas at a public university in Brazil. The cohort consisted of 60 students representing diverse fields, including Social Sciences, Engineering, Health Sciences, Humanities, and Applied Sciences. English proficiency levels ranged from A1 to B2 according to CEFR self-reporting and institutional placement criteria.

This heterogeneity reflects the inclusive structure of elective EAP courses in public higher education institutions and constitutes a relevant dimension of the study. The glossary was designed to function under conditions of uneven linguistic competence while maintaining exposure to authentic disciplinary research discourse.

The course integrates modules dedicated to academic article genres, technical-scientific language, article review writing, and oral academic presentations. The glossary task[29] was embedded within the module focusing on technical-scientific language, where students engage directly with peer-reviewed research articles selected from their own disciplinary areas.

Pedagogical Intervention Design

Within the technical-scientific language module, students were required to select a peer-reviewed research article from their disciplinary field and engage in structured activities aimed at fostering terminological awareness and conceptual discrimination. Instruction included explicit discussion of the distinction between general vocabulary and terms, grounded in the communicative view that terminological status is activated within disciplinary communicative contexts (Cabré, 1999).

Students were introduced to what were termed Look Up Strategies[30], which involved consulting scholarly databases, analyzing contextual usage within authentic research articles, comparing

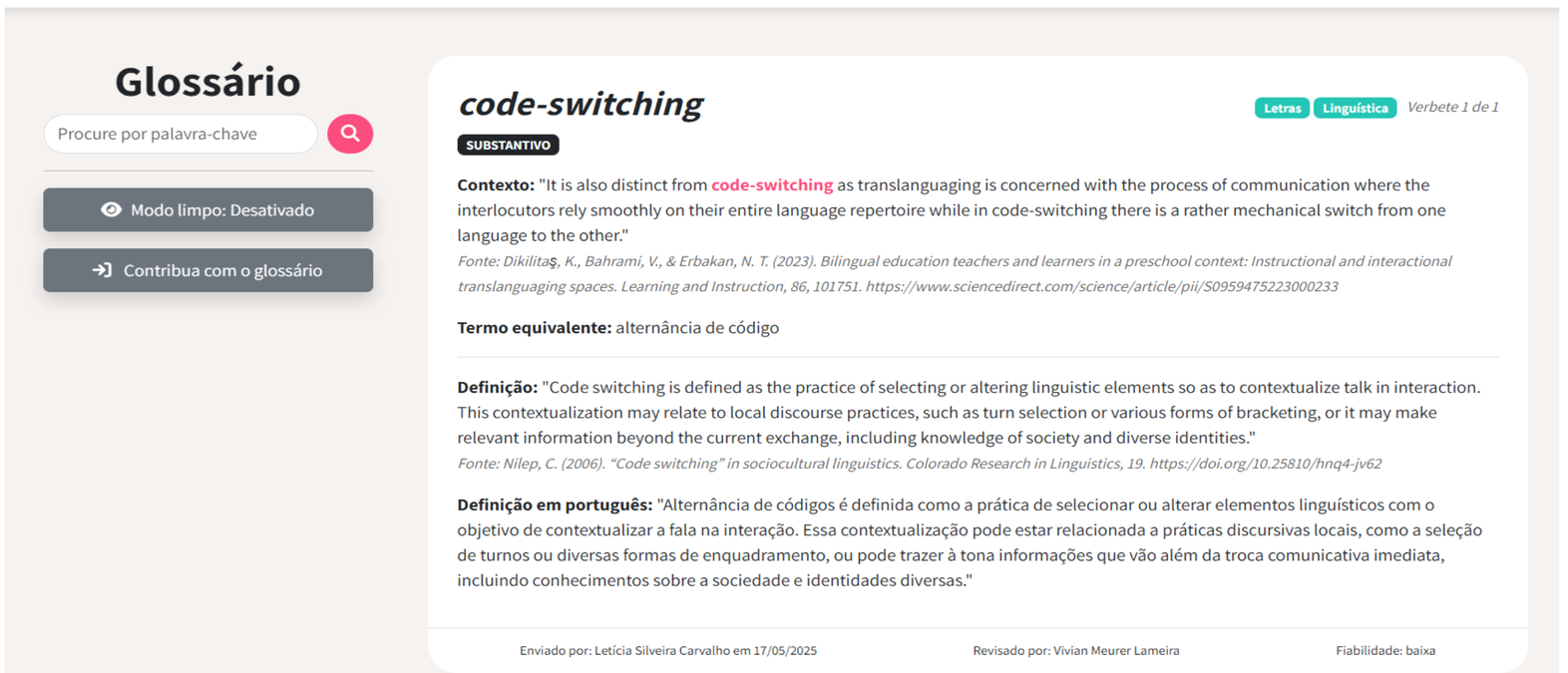
29 After using look up strategies suggested in the course material, students found the information to fill the terminological form of unknown terms taken from the research papers they selected in the beginning of the course.

30 The Look up strategies are based on a three-phase process: (1) terminological retrieval via Google Scholar using the “exact phrase” function with the term followed by the verb “is” (e.g., “MOOC is”) to target peer-reviewed definitions; (2) data triangulation through visual aids (Google

cross-linguistic equivalents, and critically evaluating definitional sources. The pedagogical emphasis was placed on contextual activation and conceptual delimitation rather than on lexical substitution. Students were guided to identify the conceptual boundaries of the selected term within the disciplinary discourse in which it occurred.

Each student produced two terminological entries for the online glossary. Each entry included the term in English, a contextual excerpt extracted from the selected research article, a definition formulated in English, a Portuguese equivalent, full source reference, and disciplinary classification. Figure 1 is an entry example.

Figure 1. Example of a Lúmina idiomas glossary entry[31].



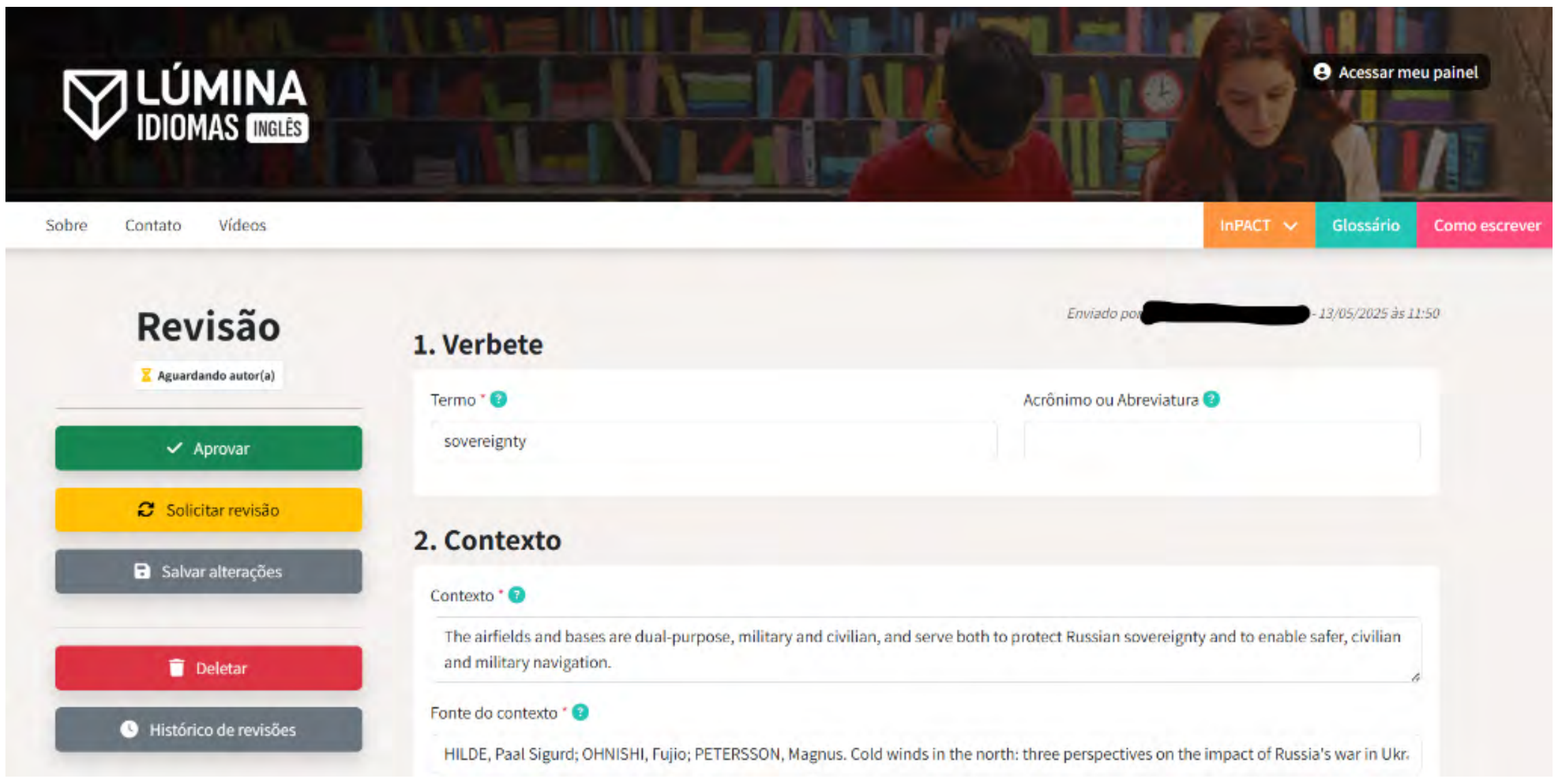
Source: https://ingles.luminaidiomas.net.br/glossario/termo/code-switching

Submissions were uploaded to the LÚMINA glossary platform and underwent instructor-mediated validation before publication. The platform interface allowed entries to be approved, returned for revision, or rejected, generating traceable validation records and revision histories, as shown in figure 2.

Images) and contextual analysis across disciplinary domains; and (3) cross-referencing of bilingual academic abstracts to identify precise Portuguese equivalents within the relevant field of study.

31 The image shows a terminological entry for "code-switching." Key interface elements include: *Verbete* (Entry), *Contexto* (Context), *Termo equivalente* (Equivalent term), *Definição* (Definition), and *Fiabilidade* (Reliability level).

Figure 2. Glossary revision interface[32].



Source: https://ingles.luminaidiomas.net.br/glossario/verbetes/1545/edit

At the time of writing, the platform contained 1,112 validated entries accumulated across multiple cohorts. The pilot implementation examined in this study therefore forms part of a broader institutional knowledge infrastructure rather than constituting a one-semester experimental artifact.

Data Corpus

The primary dataset comprises the 120 terminological entries produced by the 60 students during the pilot implementation. The corpus analyzed by five instructors does not include only the finalized validated entries. It also encompasses instructor validation notes embedded within the platform interface, revision histories of entries that required reformulation prior to approval, and records of approval and rejection decisions.

The availability of revision histories allows examination of shifts between initial and revised versions of entries, making visible the process of definitional reformulation and conceptual refinement. Instructor feedback annotations reveal the evaluative criteria mobilized during validation, particularly those related to contextual anchoring, conceptual delimitation, disciplinary adequacy, and source reliability.

Taken together, this corpus enables analysis of the glossary not only as a static repository of terminological entries, but as a procedural environment in which terminological mediation is enacted, evaluated, and potentially integrated into broader academic literacy practices.

32 The instructor's view for validating student-constructed entries. The buttons on the left allow the reviewer to *Aprovar* (Approve), *Solicitar revisão* (Request revision), or *Deletar* (Delete). The field *Histórico de revisões* (Revision history) allows for tracking the iterative refinement of the entry.

Analytical Procedures

The analytical procedures combined a descriptive quantitative overview with qualitative microanalysis. Initially, submission and approval rates were calculated to identify general validation patterns and the distribution of revision grounds. Instructor feedback annotations were examined in order to determine the most frequent sources of inadequacy in initial submissions, such as excessive reliance on translation-based paraphrase, insufficient contextual anchoring, or lack of conceptual delimitation.

The central analytical focus, however, was qualitative. A purposive sample of entries representing both initially inadequate and subsequently validated entries was selected for close linguistic examination. The analysis concentrated on definitional structures, including the prevalence of copular constructions versus relational or process-oriented formulations, the presence or absence of disciplinary delimiters, the degree of conceptual specificity, and the functional integration of contextual excerpts as epistemic anchors. Particular attention was paid to shifts observed between initial and revised versions, as these shifts illuminate developing terminological discrimination and discursive awareness within the constrained timeframe of the intervention.

In addition to examining the terminological entries themselves, subsequent genre production tasks were analyzed to identify incorporation of glossed terminology into argumentative structures. The analysis did not seek statistical measurement of learning gains. Instead, it aimed to identify evidence of transfer operationalized as contextually appropriate reuse of specialized lexical units accompanied by conceptual accuracy and disciplinary framing.

Interpretation of these discursive shifts was grounded in the theoretical integration of the Communicative Theory of Terminology and the Function Theory of Lexicography. The coherence between intervention design, validation criteria, and analytical interpretation ensures theoretical alignment across stages of the study.

Scope and Delimitations

The study does not claim causal attribution of learning outcomes exclusively to the glossary intervention, nor does it propose statistical generalization beyond the instructional context examined. Its contribution lies in providing an analytically grounded account of how a theoretically informed lexicographic model operates when embedded within an EMI-oriented higher education setting.

The findings should therefore be interpreted as situated evidence of pedagogical performance within a specific institutional ecology, offering conceptual and design implications for similar contexts of internationalized higher education and digitally mediated academic reading.

Results

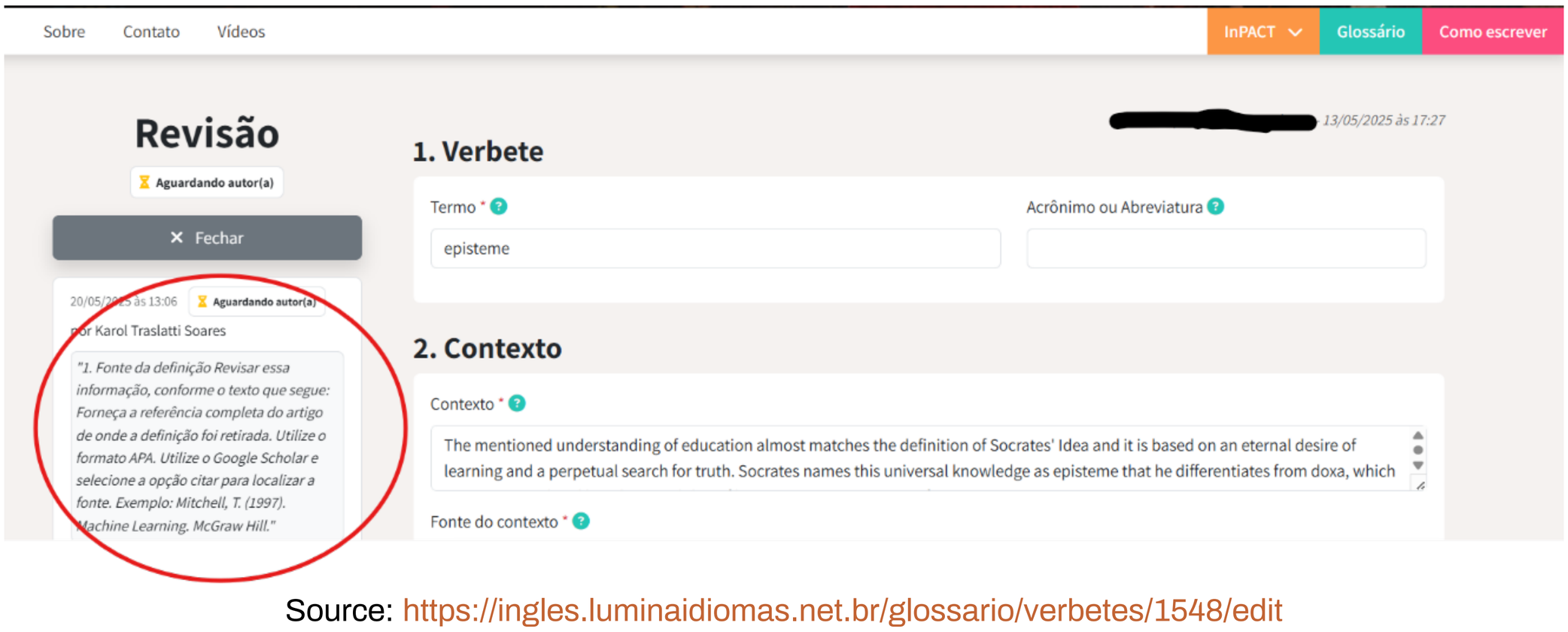
At the time of writing, the LÚMINA Idiomas glossary contains 1,112 validated entries spanning multiple disciplinary domains, including Communication, International Relations, Political Science, Geography, Nursing, Statistics, and Information Technology. The pilot implementation described in this study contributed 120 terminological entries produced by 60 students (two entries per student), from which 74 entries were validated after revision and incorporated into the platform, as shown in Table 1. The remaining entries required reformulation based on established evaluative criteria.

Table 1. Overview of Terminological Entries Produced in the Pilot Implementation

Variable	N	Percentage
Total students	60	—
Total entries submitted	120	100%
Entries approved after one revision	74	61.7%
Entries requiring substantial reformulation	46	38.3%

The revision interface, presented in Figure 3, operationalizes a pedagogical validation workflow. Each submission is categorized as “awaiting author,” “approved,” or “revision requested,” and the reviewer may approve, request revision, or delete the entry. This structure transforms validation into a formative feedback mechanism rather than a purely gatekeeping procedure.

Figure 3. Glossary revision interface (anonymized).[33]



Source: https://ingles.luminaidiomas.net.br/glossario/verbetes/1548/edit

The evaluation of student submissions followed criteria explicitly aligned with the Communicative Theory of Terminology (Cabré, 1999) and with the Function Theory of Lexicography (Fuertes-

33 The red circle highlights the *Comentários de revisão* (Revision comments) where instructors provide formative feedback. In this example, the student is instructed to provide the full source reference in APA format for the definition provided.

Olivera, 2009). Entries were assessed for contextual anchoring, definitional adequacy, conceptual precision, source reliability, and disciplinary tagging. Revision notes indicate that the most frequent grounds for reformulation were the absence of contextual excerpts (29%), insufficient conceptual delimitation (24%), unreliable or non-scholarly sources (18%), inadequate disciplinary tagging (15%), and excessive reliance on translation equivalence (15%).

Table 2. Most Frequent Grounds for Revision.

Revision Criterion	Frequency	Percentage of Revisions
Absence of contextual excerpt	13	29%
Insufficient conceptual delimitation	11	24%
Unreliable source	8	18%
Inadequate disciplinary tagging	7	15%
Translation-based definition	7	15%

The predominance of missing contextual anchoring reinforces Cabré's (2003) claim that terminological status emerges through discourse activation. Entries lacking authentic excerpts tended to reproduce dictionary-style definitions detached from disciplinary discourse. For example, early versions frequently employed copular structures such as "X is a process that…" without indicating disciplinary scope or theoretical framework.

In contrast, validated entries consistently included authentic excerpts extracted from research articles. These excerpts functioned as discursive evidence of conceptual activation, aligning with the communicative theory of terminology. Definitions accompanying validated entries also exhibited structural shifts. Rather than relying exclusively on copular constructions, students increasingly employed relational and delimiting structures such as:

- "In the context of [discipline], X refers to…"
- "Within the framework of…, X denotes…"
- "In this field, the term X is used to describe…"

Such constructions signal emerging awareness of disciplinary framing. The insertion of contextual delimiters ("in the context of," "within the framework of") demonstrates conceptual discrimination and avoidance of overgeneralization.

A qualitative comparison between non-approved and approved entries reveals systematic differences in definitional structure and epistemic orientation. In non-approved submissions, definitions frequently exhibited one of three recurrent patterns: (a) reliance on dictionary paraphrase detached from disciplinary context; (b) translation equivalence without conceptual clarification; or (c) generic explanations that failed to delimit disciplinary scope.

For instance, in one non-approved entry, transnational mobilization, a term related to political communication, was defined as "the mobilization of people across borders for political causes."

While superficially adequate, the definition lacked contextual anchoring, omitted the specific theoretical framing used in the source article, and failed to identify the disciplinary lens through which the concept was operationalized. No contextual excerpt was provided to demonstrate activation within academic discourse. This absence of contextual evidence contradicts Cabré's (1999) principle that terminological value is activated in communicative contexts.

In contrast, approved entries consistently foregrounded contextual excerpts extracted from the research article selected by the student. Definitions were reformulated to reflect disciplinary specificity and frequently incorporated hedging devices and classificatory structures characteristic of academic definitional discourse. For example, the sentence "Project researchers purposely sought quantitative and qualitative data, and the viewpoints of multiple and diverse stakeholders, including youth consumers of foster care and adoption services." (Mariscal et al., 2015) contextualizes the term stakeholders in the area of Social Services.

A closer comparison between initial and revised entries reveals shifts along three axes:

1. **From translation equivalence to conceptual reformulation.**
   Early entries often defined a term by providing a Portuguese equivalent and a generic definition. Revised versions foregrounded conceptual explanation in English before indicating cross-linguistic equivalence.

2. **From general to disciplinary specificity.**
   Initial definitions tend to adopt generalized descriptions applicable across domains. Revisions incorporated disciplinary markers and theoretical references, narrowing semantic scope.

3. **From lexical description to epistemic positioning.**
   Some validated entries referenced methodological or theoretical functions of the term within the field, signaling awareness of its role in knowledge construction rather than mere lexical labeling.

These shifts suggest that the glossary task facilitated metalinguistic reflection extending beyond vocabulary acquisition.

The presence of disciplinary tags in validated entries further supports user-oriented navigation. Rather than assuming terminological universality, the glossary architecture acknowledges disciplinary variability. For example, a lexical unit such as "mobilization" acquires distinct conceptual contours in Communication, International Relations, and Political Science. The tagging mechanism allows users to distinguish meanings across disciplinary fields.

The quantitative data further supports this interpretation. Of the 120 initial entries, 61.7% were approved after one revision cycle, while 38.3% required substantial reformulation. The most frequent grounds for revision were absence of contextual excerpt (29%), insufficient conceptual delimitation (24%), and unreliable source citation (18%). These patterns reflect the initial reliance on lexical strategies and the gradual internalization of contextual and disciplinary criteria.

The interface itself plays a pedagogical role. The visible options to “approve” or “request revision” frame validation as dialogic rather than punitive. Students are positioned as knowledge producers whose contributions require refinement rather than rejection. This aligns with the functionalist view that lexicographic products evolve through iterative user interaction (Fuertes-Olivera & Tarp, 2014).

The findings demonstrate that the glossary functions simultaneously at three levels: epistemic mediation, procedural training, and digital lexicographic innovation. From an epistemic perspective, contextual anchoring of terms operationalizes Cabré’s communicative principle. Students learn that meaning is not inherent but activated within discourse. This awareness is crucial in EMI settings, where reliance on bilingual dictionaries may obscure conceptual distinctions.

From a procedural standpoint, the Look Up Strategies module fosters strategic search behaviors consistent with academic research practices. The movement from generic web searches to scholarly database consultation indicates acquisition of academic information literacy. Terminological construction thus intersects with broader academic literacy development.

From a lexicographic design perspective, the glossary embodies Functional Lexicography’s emphasis on user needs. The primary consultation scenario—reading disciplinary research articles—determines entry structure. Context-first architecture, disciplinary tagging, and source citation respond directly to this scenario. The platform’s scalability, now encompassing 1,112 entries, suggests sustainability and cross-disciplinary applicability.

Within EMI-oriented pedagogy, integration of content and language requires explicit mediation of disciplinary discourse. The glossary intervention does not simplify disciplinary complexity; rather, it equips students with tools to navigate it. By situating terminology within authentic contexts, the glossary supports conceptual understanding without reducing linguistic demands.

The iterative validation process also introduces students to academic norms of peer review and revision. The reviewer interface mirrors scholarly evaluation practices, thereby socializing students into disciplinary communities of practice. This dimension extends the glossary beyond vocabulary support into academic enculturation.

Importantly, the intervention addresses structural asymmetries identified in global science literature. By equipping students with strategies to interpret and mobilize disciplinary terminology, the glossary contributes to mitigating epistemic barriers associated with English-dominant academic communication.

Discussion

The findings position the glossary not merely as a lexical repository but as an epistemic mediation mechanism operating within EMI-oriented pedagogy. Three interrelated dimensions emerge from the analysis: contextual activation, user-oriented design, and disciplinary integration.

Contextual Activation

The high frequency of revisions linked to missing contextual excerpts underscores the centrality of contextual activation. When students initially produced decontextualized definitions, the entries resembled traditional dictionary formulations. Instructor feedback redirected attention toward discourse-based evidence, operationalizing Cabré's communicative perspective.

The progressive inclusion of contextual excerpts indicates that students began to perceive terminology as embedded within argumentative structures. This shift aligns with Pearson's (1998) emphasis on co-text and pragmatic framing in terminological discrimination. By anchoring definitions in authentic disciplinary discourse, students engaged in conceptual delimitation rather than lexical substitution.

User-oriented Design

From a functional lexicographic perspective, the glossary's architecture corresponds to a specific consultation scenario: undergraduate students reading research articles in English. The inclusion of contextual excerpts, disciplinary tagging, and validated sources responds directly to this need.

Unlike conventional bilingual glossaries centered on equivalence, the LÚMINA glossary foregrounds interpretative support. The workflow depicted in the evaluation interface, which allows reviewers to approve, request revision, or reject entries, introduces a quality-control mechanism consistent with Bergenholtz and Tarp's (2003) insistence on lexicographic responsibility.

The presence of 1,112 validated entries across disciplinary domains further repositions the glossary from classroom artifact to institutional infrastructure. Its cumulative design allows future cohorts to benefit from prior conceptual work, reinforcing sustainability.

Disciplinary Integration

EMI pedagogy frequently grapples with the tension between content complexity and linguistic mediation. Simplification strategies may reduce conceptual density but risk compromising disciplinary integrity. The glossary intervention examined here adopts an alternative approach: instead of simplifying content, it equips students with tools to navigate terminological density.

By embedding glossary construction within genre-based instruction, the course integrates content and language at the level of conceptual articulation. Terminological work becomes inseparable from engagement with disciplinary knowledge. This integration reflects a stronger interpretation of ICLHE principles, where language development is situated within epistemic participation rather than treated as ancillary support.

Epistemic Implications

At a broader level, the glossary project addresses structural asymmetries identified by Amano et al. (2016, 2023). While institutional internationalization often emphasizes mobility and publication metrics, epistemic access at the undergraduate level remains foundational. Developing terminological autonomy may constitute an early-stage intervention mitigating later asymmetries in scholarly participation.

The glossary thus operates simultaneously at pedagogical and institutional levels. It supports individual learning trajectories while contributing to a sustainable digital knowledge resource aligned with internationalization agendas.

Conclusion

This study examined the theoretical grounding, redesign, and pedagogical implementation of a student-constructed bilingual terminological glossary embedded within an EAP course in a Brazilian public university. Anchored in the Communicative Theory of Terminology and the Functional Theory of Lexicography, the glossary was conceptualized as a context-driven epistemic mediation tool rather than a static lexical repository.

Evidence from 60 undergraduate students indicates progressive shifts from translation-based definitional strategies toward contextually grounded, conceptually delimited formulations. Quantitative approval rates combined with qualitative microanalysis reveal that iterative validation fosters conceptual discrimination and disciplinary framing. Subsequent transfer of glossed terminology into genre production tasks further supports claims of integration between content and language.

Beyond classroom effects, the accumulation of 1,112 validated entries positions the glossary as a sustainable institutional resource contributing to broader internationalization efforts. By foregrounding contextual activation and user-oriented design, the project demonstrates how terminological mediation can function as a structural mechanism within EMI-oriented higher education.

Based on the findings to this point, it can be concluded that the collaborative construction process effectively engages students in communicative practices, enabling them to comprehend the specialized texts within their respective university disciplines. Future research may explore longitudinal development across cohorts, conduct corpus-based analysis of definitional patterns within the glossary, and assess whether glossary usage significantly contributes to students' academic English literacy. Furthermore, we intend to investigate the integration of AI-assisted validation mechanisms to enhance scalability while maintaining conceptual rigor.

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17. Beyond Language: The Influence of English on Scientific Writing in Higher Education

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Abstract: This qualitative research proposal investigates how non-native English-speaking university students engage in epistemic practices as they write scientific texts in English. The study focuses on the introductory course “Experimental Basis of Natural Sciences” (EBNS), a mandatory component of the Bachelor’s degree in Science and Technology (BC&T) at the Federal University of ABC (UFABC) in Brazil, a public higher education institution that actively promotes internationalization. The primary objective of this proposal is to characterize the scientific course and its participants - both the instructor and the first-year students - while discussing how the use of the English language influences their academic written communication. Among the relevant discussions for the English as a Medium of Instruction (EMI) field, the study highlights the instructor’s discourse in situating the course within the institutional context of “internationalization at home.” This approach clarifies to students that content-learning in English aims to foster institutional internationalization, rather than merely serving as language practice. Furthermore, the analysis reveals that the students’ written productions displayed uncommon elements of creativity, incorporating cultural aspects from English-speaking countries while addressing challenging scientific topics, which suggests a distinct tendency among these participants to step outside their comfort zone.

Keywords: English as a Medium of Instruction (EMI), Epistemic Practices, Scientific Writing, Science Education, Higher Education.

Introduction & Objective

The internationalization of higher education has gained prominence in Brazil, supported by both researchers and governmental policies (Ferreira, 2020). Its initiatives can occur abroad, through activities such as academic mobility, or within the institutions, the so-called internationalization at home (IaH). In both cases, English is commonly prioritized as the language of communication (Macaro et al., 2018; Macaro & Rose, 2023).

This study is an excerpt from a broader investigation within the field of Science Education. This area currently lacks research on the influence of English as a Medium of Instruction (EMI) on learning, especially regarding learners’ genuine participation in the social, cultural, and epistemic practices of science. In this study, social participation involves the interactional engagement with the scientific community and its shared texts and symbols (Duschl, 2008). Cultural participation refers to the ways writers express their identities and incorporate diverse cultural references into scientific discourse (Knorr-Cetina, 1999). Most importantly, epistemic participation is defined as the socially organized and interactionally constructed ways through which students propose, communicate, evaluate, and legitimize knowledge claims, encompassing the processes of knowledge justification in their writing (Kelly & Licona, 2018).

In view of the above, the larger study investigated how university students who are non-native speakers of English engage in epistemic practices when writing scientific texts in English in an introductory general science course at a public, internationalized university taught within

an EMI framework. The research questions guiding the full study were: (1) How do university students who are non-native speakers of English engage in epistemic practices when producing a scientific text in English that reports on an investigative project they developed in an introductory science course taught within an EMI framework? (2) How do these students' scientific writing in English and their participation in epistemic practices reflect the university's perspectives on internationalization?

As a contribution to the *ICLHE field*, this essay offers a brief reflection on how the use of English may have influenced the written scientific communication of Brazilian students at the beginning of their university trajectory.

Methodology

This qualitative study analyzes scientific texts written in English by Brazilian university students. The educational setting is the course *Experimental Basis of Natural Sciences* (EBNS), taught within an EMI framework. EBNS is an introductory, interdisciplinary science course, mandatory for the Bachelor's degree in Science and Technology (BC&T) at the Federal University of ABC (UFABC), located in São Paulo, Brazil. The course was selected because it meets several criteria essential to this study: its consistent offering in English over the years; its experimental and interdisciplinary nature, covering Biology, Physics, and Chemistry; its small class sizes and emphasis on hands-on laboratory activities, which foster interaction among participants and, consequently, opportunities for engagement in epistemic practices; and its focus on scientific writing as part of the learning process.

Since the course has been consistently offered in English, the instructor had extensive experience in EMI, providing a consolidated instructional context rather than an isolated or tentative initiative. The interdisciplinary experimental nature of the course, encompassing Biology, Physics, and Chemistry, is fundamental for enabling the observation of how students navigate diverse epistemic cultures and distinct processes of knowledge justification. Furthermore, by consisting exclusively of laboratory work and collaborative group activities, the course shifts the focus from theory to the social practice of science, fostering the collaborative engagement and interactional discourse necessary for the shared development of epistemic practices.

Throughout the course, students develop an investigative project and produce a scientific article in English reporting their objectives, experimental procedures, analyses, results, and conclusions[34]. These articles constitute the corpus of this research, whose analysis focuses on Rhetorical Moves (RMs), Epistemic Levels (ELs), Code Switching (CS), and Epistemic Practices (EPs) present in the texts.

The concept of RM adopted in this study follows Swales (2004), who defines it as a discursive or rhetorical unit that fulfills a coherent communicative function within a written or spoken text.

34These are the sections proposed in the course template for writing the scientific paper.

Although sometimes aligned with fixed grammatical units, such as sentences or paragraphs, Swales characterizes moves as functional rather than formal units, with flexible linguistic realization ranging from a single clause to multiple sentences (Swales, 2004, p. 228-229). Applying this concept acknowledges that each section of a scientific article — Introduction, Methodology, Results, and Discussion — has distinct sociorhetorical purposes that guide authors' textual constructions. Based on Swales (2004), the identification of rhetorical moves in the EBNS students' texts allowed us to understand if and how the use of English shaped their ability to fulfill the communicative purposes of the scientific genre, such as establishing central constructs for the thesis statement, acknowledging difficulties in the interpretation of data, and consolidating and contextualizing results. Additionally, the inference of the sociorhetorical actions underlying their writing supported the characterization of the epistemic practices developed by the students. Following Kelly and Bazerman (2003), our approach used Swales' model as a point of departure but remained flexible to identify and incorporate moves that were responsive to the students' context and not included in Swales' proposed rhetorical moves, ensuring alignment with our research focus and the specific characteristics of the texts.

ELs refer to the presence of empirical and theoretical data in students' written arguments, as well as to the coherence built between these elements in scientific writing. Following Kelly & Takao (2002), we established six epistemic level categories[35], ranging from specific claims grounded in concrete data to progressively more abstract, theoretically oriented assertions. This lens reveals how students coordinate empirical data with theoretical claims, providing insights into whether writing in English influenced the complexity and coherence of their scientific arguments.

The analysis CS was informed by Buell (2004), who identifies two types of this phenomenon: (1) the use of another language different from the predominant one; and (2) more subtle shifts in style, register, voice, or worldview. In this study, CS analysis was chosen as the primary tool to observe cultural and identity shifts, proving particularly revealing of how students navigate the tension between academic formality and their own creative voices. By focusing on these subtle shifts, we identified the incorporation of Anglophone cultural references that emerge specifically through the use of English. As the principal findings presented in this paper stem from this analytical lens, they are detailed and discussed in the Results and Discussion section.

EPs are defined as "the socially organized and interactionally constructed ways through which members of a group propose, communicate, evaluate, and legitimize knowledge claims" (Kelly & Licona, 2018, p. 140). EPs are interactional (constructed by and among people working together in a shared activity), contextual (situated within social practices and cultural norms),

35 The categories are as follows: **EL I -** propositions referring directly to materials/objects or concrete data and their representations in tables, graphs, and figures; **EL II -** propositions referring to scientific characteristics of materials/objects; **EL III -** propositions describing scientific relationships between materials/objects and/or relationships among their characteristics within the scientific field; **EL IV -** propositions presenting theoretical scientific claims or scientific models illustrated with concrete data from the experiment; **EL V -** propositions in the form of theoretical claims or scientific models specific to the field of study; **EL VI -** general propositions describing scientific processes or referring to definitions, experts, or textbooks, where the knowledge represented may not relate directly to specific data in the area of study; **General Comments -** personal opinions, general remarks, and other metadiscursive comments not necessarily scientific, which do not contribute to the evidentiary basis of the argument. For the analysis of ELs, the units of analysis were the grammatical sentences as punctuated by the student-authors.

intertextual (communicated through discursive processes that make use of and refer to previous oral or written discourse, as well as historically shared signs and symbols), and consequential (they shape what counts as legitimate knowledge) (Kelly, 2016; Kelly & Licona, 2018; Kelly et al., 2023).

After analyzing ELs, RMs, and CS in the students' scientific articles, we examined traces of their engagement with proposing, communicating, evaluating, and legitimizing ideas. Considering the scientific articles as a genre — meaning a broader social practice shared by the group — allowed us not only to identify EPs within the writing but also to characterize how student-authors developed them — that is, how processes of knowledge justification appeared in their texts — and how the EMI context fostered or challenged their entry into the scientific community.

The participants of the study include the professor and the students enrolled in the course in 2019. The instructor is a Physics professor who has volunteered to teach EBNS in English at UFABC since 2015. The students, all Brazilian, were first-year undergraduates in the BC&T program, aged between 17 and 21 years. The research corpus consists of six scientific articles written in English — the only ones produced in English among the 145 papers presented at the 2019 EBNS symposium. As these articles were developed through collaborative group work, the six papers potentially represent the practices of 56 student-authors[36]. Table 1 presents detailed information about these articles, as well as the composition of the student-author groups.

Table 1. Information on the scientific articles analyzed in this research

Title	Main field of knowledge	Authors' gender	First language (L1)	Shift
Do pancakes taste like science?	Chemistry	5 female 5 male	Portuguese	Morning
How the theory of everything relates to cereal in a bowl	Physics	7 female 2 male	Portuguese	Morning
Jet Propulsion Rocks: Balls Oscillating on Tap	Physics	4 female 6 male	Portuguese	Evening
Smartphone's Fragile Fortress: A Glass Fracture Study	Engineering	5 female 5 male	Portuguese	Morning
The *Beantles*	Biology	2 female 6 male	Portuguese	Evening
The dance of levitating water	Physics	2 female 7 male	Portuguese	Evening

36 The term "potentially" is used here to acknowledge that, while the study analyzes the collective scientific communication of the groups, the findings are based strictly on the articles as a corpus rather than on individual assessments or other data sources, such as interviews.

Results & Discussion

As previously noted, for this study, the analysis of CS proved the most fruitful for observing how the use of the English language influenced student-authors' engagement in the social practice of scientific writing. Across the entire corpus, we identified situations involving a break from the typical formality of scientific writing. While these features might reflect the initial stage of academic literacy of first-year undergraduates — who are still learning to navigate the boundaries between familiar daily registers and specialized scientific discourse — the contrast with the broader context of the symposium is revealing. Of the 145 papers presented in the 2019 symposium[37], only six were written in English, while 139 were in Portuguese. A review of all titles indicated that only 4% of the texts written in Portuguese showed any degree of creativity, whereas such deviations were a hallmark of the English-language corpus. This disparity suggests that the use of English, within an EMI framework, might have functioned as a mediator that fostered a more creative learning environment. For these students, the foreign language seems to have provided a space where they could perform the role of emerging global scientists while still drawing on their creative voices and identities. Some examples of this behavior include:

(i) The use of adjectives and expressions uncommon in scientific writing ("amazing" in "Do Pancakes Taste Like Science?"; "exciting" and "crushed and buried" in "How the Theory of Everything Relates to Cereal in a Bowl"; "surprising" in "Jet Propulsion Rocks: Balls Oscillating on Tap");

(ii) An informal and unconventional register in certain text segments ("We're gonna miss u dude" and "thanks... for the supporting and patience" in the acknowledgments);

(iii) Original and creative article titles (see Table 1).

Furthermore, these instances of informal and transitional registers should not be viewed as a lack of rigor, but as markers of identity and affiliation. This "mixing" of registers reveals how novice science writers negotiate their entry into the scientific community, incorporating Anglophone cultural references (such as "pancakes" or the "Cheerios Effect") that emerge specifically through the use of English. Thus, the rupture with formality is interpreted not as a literacy deficit, but as a complex participation in the social practice of science, facilitated by the instructor's explicit encouragement of creativity in this internationalized context.

The analysis of CS is useful for investigating the cultural practices adopted by a group (Buell, 2004). Proceeding from this assumption, some questions we posed when faced with the analysis of code-switching in our corpus were: "What are the consequences of this type of discourse?"; "What does it tell us about what counts as knowledge and about what counts as reporting for this group?"; "What do we learn about the social roles of the different participants through this?".

37 Available for consultation at http://becn.ufabc.edu.br/Simposio/Livro-de-resumos_2019.pdf.

In an attempt to answer these questions based on our results, we can state that, for these students, the major part of the scientific article consists of formal writing. However, the practice of reporting research also allows space for creative titles that provoke the reader's curiosity and for the manifestation of an informal and unconventional register, primarily in the acknowledgments section. These features highlight the initial stage of academic literacy of these first-year undergraduates, who are navigating the transition between familiar, everyday registers and the specialized discourse of the scientific community. It is also important to consider that the instructor explicitly encouraged creativity in the students' writing; thus, we can hypothesize that, within this EBNS group, the professor's stance corroborated that "what counted" as scientific writing in that specific context allowed space for humorous, curious, and creative expressions (Milena, 2024).

Still concerning the article titles, which are parts of the texts where we identified CS, our analyses also indicate that they operate at certain epistemic levels and execute rhetorical moves. Most of the titles present lower epistemic levels, as they relate to the material domain of the research conducted, except for "How the Theory of Everything Relates to Cereal in a Bowl," which already signals integration between the empirical and theoretical domains of the experiment performed. In terms of rhetorical moves, most titles serve the function of announcing the research in question, although "The *Beantles*" and "The Dance of the Levitating Water" do so only partially, with their meaning fully understood only upon reading the other sections of the articles. "Do Pancakes Taste Like Science?", in turn, poses a rhetorical question that, in a way, invites the reader to engage with the text.

Another interesting aspect of the CS analysis is related to the presence of elements from popular culture (non-academic or non-scientific) in the writing considered valid within the group. For these students, such incorporation did not compromise the scientific rigor of the articles produced, as seen in expressions like "crushed and buried" (in "How the Theory of Everything Relates to Cereal in a Bowl") or "fragile fortress" (in "Smartphone's Fragile Fortress"). This awareness of rigor was specifically mediated by the instructor's pedagogical approach, which emphasized that scientific integrity stems primarily from empirical honesty and structural objectivity rather than a dry lexicon. During the writing process, the professor provided explicit guidance on "cleaning" the texts — by removing subjective wordiness to ensure claims remained grounded in evidence — while simultaneously encouraging creative titles as a legitimate way to provoke curiosity. Consequently, students understood that, as long as they remained strictly committed to data integrity (avoiding "fake data") and mathematical demonstration, there was space for their own creative voices and cultural identities to emerge without devaluing the scientific nature of their work.

Regarding cultural issues, the analysis of the texts revealed that, when writing in English, the students drew not only on the language itself but also on cultural references typically associated with Anglophone countries. In "Do Pancakes Taste Like Science?", the students describe pancakes as a traditionally consumed breakfast food, which does not align with the Brazilian context. This is evident in the following excerpt:

"When people think about breakfast, it may be hard to find someone who does not enjoy pancakes, they seem to be present everywhere, but one may wonder where they came from, and what can be said about some of their characteristics." (Excerpt from the section entitled "Introduction" of "Do Pancakes Taste Like Science?", unit 11 of analysis, emphasis added).

In "How the Theory of Everything Relates to Cereal in a Bowl," the American cultural element is found in the expression Cheerios Effect, considering that Cheerios® is a brand of breakfast cereal widely consumed in the United States (https://www.cheerios.com/), but little known in Brazil. In "Smartphone's Fragile Fortress," when the student-authors advocate for the importance of studying material fractures, they cite the example of the Duplessis Bridge, located in Canada, which collapsed in 1951 due to the brittle behavior of its steel composition under the low temperatures of the Canadian winter. Just like the pancake breakfast and Cheerios cereal, we have another example of the influence — in this case, historical — of an Anglophone country on the scientific writing of the EBNS students. Finally, in "The *Beantles*," the influence of cultural elements from Anglophone countries is expressed in the choice of the song and the band, both of English origin (The Beatles, "Let it be"), to the sound of which the bean seeds germinate in the students' experiment.

To fully understand how the use of English influenced students' written communication, it is necessary to consider the institutional context in which these practices were situated. From an institutional standpoint, reflecting on the role of the EBNS course in English within the university, we see that this Internationalization at Home initiative revealed a tension between institutional intentions and student perception within the context of internationalization at UFABC. While the instructor framed EMI within a broader institutional internationalization policy, extending beyond mere language practice, the students tended to view the course primarily as a valuable opportunity for English practice. Despite this emphasis on language, the students highlighted the course's value for research initiation, the development of specific scientific vocabulary, and gaining confidence for future academic or international mobility opportunities[38], thereby directly shaping their entry into the social and epistemic practices of global science.

Conclusion & Further Perspectives

The central aim of this study was to examine how the use of English may have influenced the written scientific communication of Brazilian students at the beginning of their university trajectory. Within this scope, an important contribution of the research lies in the use of CS analysis. Although this analytical lens was initially adopted due to the bilingual profile of the participants, the findings show that instances of CS did not take the form of alternation between Portuguese and English. Instead, they manifested through shifts in style, register, and lexical choice (Buell, 2004). These results indicate that analyzing CS expressed through such subtle textual shifts can be productively applied even in studies involving monolingual students. This

38 This information, derived from student questionnaires and an interview with the teacher, is detailed further in the full research manuscript (Milena, 2024).

analytical approach highlights the ways in which writers express their identities and incorporate diverse cultural references into scientific discourse.

The study also contributes to Science Education research by analyzing scientific texts produced in an EMI setting. Our findings, particularly through the lens of CS, provide material evidence that students' written communication and engagement in EPs were not hindered by the use of English. Scientific writing constitutes an EP because it involves the socially organized ways through which a group proposes, communicates, evaluates, and legitimizes knowledge claims, serving as a central mechanism for the construction and justification of knowledge (Kelly & Licona, 2018; Deng et al., 2019). Even when writing in a non-native language, students successfully engage in these practices, imprinting their authorship and identity through creative lexical choices and unconventional registers. This process indicates that English functioned as a mediator for authentic participation, enabling students to act as members of the scientific community while preserving their unique creative voices. From a sociocultural perspective of science learning — which recognizes the centrality of interactions among individuals and with symbols, texts, and technologies — and considering that EPs are interactional, contextual, intertextual, and consequential (Kelly, 2016), future research may further explore how English mediates classroom interactions, scientific writing processes, and participation in other epistemic activities.

The EMI-oriented course of EBNS fostered meaningful engagement in authentic scientific discourse, as evidenced by the student-authors' ability to navigate between specialized academic registers and their own creative voices (Bazerman, 2004). Our textual analysis, particularly the study of CS, revealed these subtle linguistic shifts as material traces of students imprinting their authorship while proposing and communicating knowledge (Kelly, 2023). Furthermore, the instructor's role remains essential to the development of meaningful internationalization, which we define here as the transition from mere language practice to communicative action. In this perspective, internationalization is not just the use of English, but the promotion of authentic participation where students interact as emerging members of a global scientific community while preserving their agency and identity (Milena, 2024).

With regard to scientific writing in English, the findings suggest that the student-authors tended to move away from conventional scientific formality in certain instances, employing unconventional registers and creative expressions — particularly in their highly original titles when compared to those written in Portuguese. Rather than an intentional subversion of academic discourse, these features likely reflect a reliance on familiar daily registers as these novice writers navigate the initial stages of academic and scientific literacy. Students also incorporated cultural references from English-speaking contexts (e.g., breakfast pancakes, the Cheerios Effect, Canada's Duplessis Bridge, and The Beatles' Let It Be). The selection of challenging and "unusual" scientific topics was further encouraged by the instructor's pedagogical approach, which prompted students to move beyond their comfort zones by designing their own experimental apparatuses rather than relying on standard laboratory kits. This combination of factors indicates a tendency to engage more audaciously both linguistically and scientifically.

By examining the intersection of scientific content and the English language, this study underscores that EMI acts as more than just a linguistic vehicle; it serves as a mediator for authentic participation in the social and epistemic practices of science. Our analysis of student-authored articles provides material evidence that written communication and engagement in scientific discourse are framed by the use of English, offering a unique space for creative authorship and voice. Looking ahead, we plan to conduct ethnographic studies to further investigate how EMI shapes interactions and discourse in the science classroom, contributing to the evolving field of integrating content and language in higher education. We are open to research collaborations with linguists to explore the simultaneous learning of disciplinary knowledge and the language of instruction (Cunningham et al., 2021), further illuminating how EMI can foster meaningful participation in Science Education as it is increasingly shaped by Higher Education internationalization.

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18. Citation Practices in Brazilian Applied Linguistics: Implications for Inclusive EMI

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Abstract: As higher education institutions in the Global South increasingly adopt English-Medium Instruction to promote internationalization, understanding academic writing conventions can support epistemic justice and linguistic inclusion. Citation is a central rhetorical practice that reflects how research communities construct authority and negotiate knowledge. This corpus-based study compares citation practices in Brazilian Applied Linguistics, represented by *Revista Brasileira de Linguística Aplicada* (RBLA) (65 articles, 611,652 tokens), and international standards, represented by *Applied Linguistics* (AL) (60 articles, 557,007 tokens). By analyzing a manual subset of 24 articles and conducting automated searches using Corpus Query Language (CQL), we found that RBLA significantly privileges integral citations (45% vs. 33% in AL) and attributional frames like “According to + author” (LL = 5.19, $p < .05$). Conversely, AL relies on non-integral forms (67% vs. 55% in RBLA) and verbs of discovery (e.g., *find*, *show*). These patterns reveal tension between a dialogic, author-centered relational epistemology in Brazil and a depersonalized, evidence-centered scientific ethos internationally. We argue that inclusive EMI programs must move from mechanical, compliance-based citation pedagogy to a rhetorical, power-sensitive lens, helping Global South scholars adapt strategically to international publishing expectations while maintaining critical awareness of diverse rhetorical and epistemological traditions.

Keywords: citation practices, English-medium instruction, epistemic justice, applied linguistics, academic writing.

Introduction

The rapid expansion of English-Medium Instruction (EMI) and Other Languages as a Medium of Instruction (OLMI) is widely promoted as an inevitable route to the internationalization of higher education and global scientific circulation (Dafouz & Smit, 2020; Macaro, 2018). However, this linguistic shift is not neutral. Academic writing and publishing conventions operate as critical gatekeepers to global knowledge dissemination, frequently positioning scholars and students from the Global South at a structural disadvantage (Lillis & Curry, 2010; McCulloch & Indrarathne, 2023). While institutional policies often assume that language is merely a transparent tool for content delivery, critical EMI scholarship has demonstrated that language is entangled with power, identity, and epistemic access (Kerfoot & Bello-Nonjengele, 2023; Sah & Fang, 2025).

At the core of academic literacy lies the practice of citation, a rhetorical mechanism used to acknowledge previous scholarship, position research, and establish scholarly credibility (Hyland, 1999; Swales, 1990). Citation is an ideological act that reflects how a particular research community conceives of authority, consensus, and knowledge construction, rather than a simple mechanical exercise in complying with style guides (Hyland, 2000; Petrić, 2007). In Latin America, especially in Brazilian Applied Linguistics, academic publishing reflects a historically relational, dialogic, and essayistic tradition. However, this local orientation often clashes with the rigid, depersonalized conventions of high-impact international journals, leading to what has been referred to as linguistic and epistemic insularity (Baumvol et al., 2021; Garcez, 2019).

To address these tensions, it is necessary to look beyond surface-level language challenges and interrogate the discursive architectures of scientific authority. This paper presents a comparative corpus-based study of citation patterns in Brazilian and international Applied Linguistics. By contrasting the *Revista Brasileira de Linguística Aplicada* (RBLA) and the journal *Applied Linguistics* (AL), we seek to expose the divergent epistemological frameworks that shape these academic spaces. Ultimately, we bridge these empirical findings with the principles of epistemic justice, arguing for a rhetorically conscious approach to academic writing pedagogy in global EMI higher education (Ennser-Kananen et al., 2024; Sah & Fang, 2025).

Citation as a Discursive and Social Practice

Academic writing involves bringing different voices into the text in ways that support the writer's argument. Hyland (1999) conceptualizes citation as a form of "academic attribution" that plays a vital role in constructing facts and negotiating disciplinary knowledge. Through explicit referencing, writers establish intertextual connections, demonstrate familiarity with the field's literature, and claim membership in a specific discourse community (Hyland, 2000).

Swales (1990) identifies two primary structural forms of citation based on their syntactic integration: integral and non-integral citations. In an integral citation, the cited author's name is a grammatical element of the sentence (e.g., "According to Smith (2018) ..."), which foregrounds the human agent as the active creator of knowledge. In contrast, a non-integral citation places the author's name outside the main clause, typically in parentheses (e.g., "(Smith, 2018)"), backgrounding the individual researcher to prioritize the propositional content or empirical findings. The choice between these two forms is rhetorically significant; softer disciplines tend to employ more integral citations to negotiate viewpoints dialogically, whereas harder sciences rely on non-integral citations to convey an objective, consensus-based reality (Hyland, 1999).

Beyond syntactic form, citations serve distinct rhetorical functions. Building on Thompson and Tribble's (2001) work, Petrić (2007) developed a comprehensive typology of citation functions in academic writing, identifying eight key categories:

- **Attribution:** Citing a source to credit a specific idea, concept, or finding without evaluation.
- **Exemplification:** Using a source to provide an example of a broader statement.
- **Further Reference:** Directing the reader to external sources for additional information (often signaled by *see* or *cf.*).
- **Statement of Use:** Declaring that a specific theory, tool, or methodology is adopted in the current study.
- **Application:** Applying a concept or model from a cited source to analyze one's own data.
- **Evaluation:** Assessing the strengths, weaknesses, or validity of a cited work.

- **Establishing Links Between Sources:** Comparing, contrasting, or synthesizing different cited perspectives.
- **Comparison with Sources:** Mapping the writer's own findings against previous research to highlight novelty or corroboration.

Prior Comparative Studies on Citation Practices

Citation forms and functions are shaped by the writer's academic expertise and socio-cultural background. Prior research indicates that novice and plurilingual writers whose first language is not English often struggle with the rhetorical dimensions of citation, tending to treat it as a mechanical compliance exercise to avoid plagiarism or as a simple "knowledge display" rather than as a tool for persuasion (Mansourizadeh & Ahmad, 2011; Petrić, 2007). Consequently, these writers often rely on simple attribution, failing to critically evaluate sources or strategically position their own authorial voice (Petrić, 2007).

This contrast is also discussed by Gong et al. (2025) in their study of citation practices in Chinese Applied Linguistics. Based on a 715,000-word corpus, they found that integral citations were more frequent than non-integral citations, unlike what is usually reported in academic English, where non-integral forms tend to prevail (Arizavi & Choubsaz, 2021). The difference was especially marked among novice authors, who used integral citations in 64.97% of their citations, compared with 54.25% among expert authors. Gong et al. (2025) argue that expert writers used non-integral citations more strategically to present information objectively and connect it to their own arguments. Novice writers, by contrast, relied more heavily on integral, verb-controlling citations, often presenting previous studies as authoritative statements rather than as contributions to be discussed.

These differences suggest that difficulties with citation are not only linguistic but also rhetorical. When writers treat citation mainly as the insertion of previous studies into the text, they may remain closer to what Scardamalia and Bereiter (1987) describe as a knowledge-telling model of writing, in which content is retrieved and organized with limited attention to rhetorical goals. More experienced writers tend to move toward knowledge transforming, using citation to evaluate previous work, position their own study, and guide the reader through an argument. This developmental challenge becomes even more complex when scholars seek to publish in English-medium international journals, where rhetorical expectations are often implicit, unevenly taught, and difficult to infer (Lillis & Curry, 2010; McCulloch & Indrarathne, 2023).

Methodology

To systematically investigate the divergent rhetorical conventions of national and international academic writing, we conducted a corpus-based comparative analysis. The study compared two prestige journals within the discipline of Applied Linguistics, reflecting different geographic and discursive orientations.

Corpus Description

The corpus developed for this study comprises research articles published between 2020 and 2024.

- **The Brazilian National Corpus:** Represented by the *Revista Brasileira de Linguística Aplicada* (RBLA), an open-access, university-managed, nationally oriented journal published in Brazil.
- **The International Benchmark Corpus:** Represented by *Applied Linguistics* (AL), published by Oxford University Press, a globalized journal with international circulation.

The two corpora are comparable in terms of both the number of articles and average article length (Table 1), providing a stable baseline for comparing citation density and frequency.

Table 1. Composition and Size of the RBLA and AL Corpora

Corpus	Number of articles	Total tokens	Average tokens per article
RBLA	65	611,652	9,410
AL	60	557,007	9,283

Corpus Search and Analytical Procedures

The corpus search was conducted on the Sketch Engine platform using Corpus Query Language (CQL), a formal query syntax for identifying specific linguistic patterns in corpora, to retrieve both integral and non-integral citations. For instance, to capture non-integral citations, a precise query was designed to match sequences containing years enclosed in parentheses: [word="\("][word="[A-Z].*"][ ]{0,5} [word="\d{4}"][ ]{0,5} [word="\)"]

This allowed for the systematic identification of relative frequencies per million tokens for non-integral citations and specific lexical reporting frames, such as "According to + author" or "Author + Reporting Verb". To determine whether the differences in frequency between the two corpora were statistically significant, a Log-likelihood (LL) test (Rayson & Garside, 2000) was performed, adopting a critical threshold of $LL > 3.84$ ($p < 0.05$).

To validate the automated findings and perform a deeper qualitative assessment, a manual analysis of a subset of 24 articles was conducted (12 randomly selected from each journal). Every citation in this subset was hand-coded by the authors to record:

1. The total number of references listed.
2. The raw frequency of direct quotations.
3. The raw and percentage frequencies of integral vs. non-integral citations.

This multi-method approach ensures both the generalizability of the corpus-wide trends and the accuracy of the qualitative rhetorical analysis.

Results and Analysis

The findings of this study constitute our primary empirical contribution, revealing a stark and statistically significant divergence in how authority and authorship are negotiated in Brazilian and international Applied Linguistics.

Findings

The manual analysis of the 24-article subset reveals differences in overall citation density, the use of direct quotations, and the preference for structural citation types.

Table 2. Manual Citation Analysis of 24 Articles (RBLA vs. Applied Linguistics)

Metric	RBLA (12 Articles)	Applied Linguistics (12 Articles)
Total References	587 (avg. 48 per article)	604 (avg. 50 per article)
Total In-Text Citations	1,014 (avg. 85 per article)	808 (avg. 67 per article)
Direct Quotations	51 (avg. 4.2 per article)	12 (avg. 1.0 per article)
Integral Citations (Raw & %)	452 (45%)	269 (33%)
Non-Integral Citations (Raw & %)	562 (55%)	539 (67%)

As shown in Table 2, while the average number of bibliographic references is nearly identical (48 in RBLA vs. 50 in AL), the actual density of in-text citations is higher in the Brazilian journal, which averages 85 citations per article compared to 67 in AL. More importantly, the structural integration of these citations diverges:

- **Integral Citations:** RBLA exhibits a higher proportion of integral citations (45%) compared to AL (33%).
- **Non-Integral Citations:** AL favors non-integral citations, which account for 67% of its total in-text references, compared to 55% in RBLA.
- **Direct Quotations:** The contrast in verbatim quoting is particularly remarkable. RBLA authors use an average of 4.2 direct quotations per article, whereas AL authors use only 1.0.

These quantitative indicators show that the Brazilian academic community actively integrates the cited scholar into the grammar of the sentence and preserves their exact wording, establishing a highly visible, dialogic relationship with sources. Conversely, the international journal backgrounds the human agent, preferring to synthesize ideas through non-integral forms.

Lexical–Syntactic Variation and Stancetaking in Reporting Frames

The automated corpus analysis of the full dataset (1,168,659 tokens in total) shows that these structural preferences are also reflected in distinct lexical-syntactic reporting frames. To

assess whether the differences between the two corpora were statistically meaningful, normalized frequencies per million tokens and LL values were calculated.

Table 3. Corpus Comparison of Syntactic and Lexical Attribution Frames

Feature	RBLA (611,652 tokens)	Applied Linguistics (557,007 tokens)
Non-integral citations	2,318 → 3,789.0 per million	**2,258 → 4,053.8 per million**
According to + author	**221 → 361.3 per million**	27 → 48.5 per million
As stated by + author	**9 → 14.7 per million**	0 → 0 per million
For + author	**21 → 34.3 per million**	1 → 1.8 per million
In accordance with + author	6 → 9.8 per million	1 → 1.8 per million
Author + point out	**29 → 47.4 per million**	9 → 16.2 per million
Author + state	**26 → 42.5 per million**	3 → 5.4 per million
Author + Claim	**27 → 44.1 per million**	5 → 9.0 per million
Author + Show	13 → 21.3 per million	**35 → 62.8 per million**
Author + Propose	27 → 44.1 per million	35 → 62.8 per million
Author + Suggest	24 → 39.2 per million	20 → 35.9 per million
Author + Argue	42 → 68.7 per million	43 → 77.2 per million
Author + Find	22 → 36.0 per million	**45 → 80.8 per million**
Author + Explain	15 → 24.5 per million	5 → 9.0 per million

Note: *Raw counts are shown to the left of the arrow (→), and normalized frequencies per million tokens are shown to the right. Values in* ***bold*** *indicate statistically significant differences between the two corpora according to the LL test.*

The LL test confirms that these lexical choices, shown in bold, are not random but point to systematic differences in the reporting frames preferred by each journal.

- **The Relational / Attributional Paradigm in RBLA:** The phrase “According to + author” occurs at a normalized frequency of 361.3 per million in RBLA, compared to a mere 48.5 in AL. Similarly, RBLA overuses passive relational frames like “As stated by” (14.7 vs. 0.0 in AL), “For + author” (34.3 vs. 1.8), and “In accordance with” (9.8 vs. 1.8). When using active reporting structures, Brazilian authors favor verbs of saying and assertion, such as “point out” (47.4 vs. 16.2) and “state” (42.5 vs. 5.4).
- **The Empirical / Discovery Paradigm in Applied Linguistics:** In contrast, the international journal overuses active research verbs and verbs of empirical demonstration. The frame “Author + find” is more than twice as frequent in AL (80.8 per million) as in RBLA (36.0). Likewise, “Author + show” is nearly three times more frequent in AL (62.8) than in RBLA (21.3).

These quantitative differences reflect two fundamentally distinct rhetorical styles and epistemological traditions:

1. The Rhetoric of Authority Mediation (RBLA)

The dominance of integral citations, direct quotations, and attributional frames like “According to” and “point out” reveals that Brazilian Applied Linguistics operates under a dialogic, relational ethos (Garcez, 2019). In this discursive model, knowledge construction is seen as an ongoing, intersubjective conversation (Hyland, 1999; Swales, 1990). By naming the cited author as the grammatical subject and preserving their exact words, the writer acts as a respectful host who brings colleagues onto the stage to validate their claims (Hyland, 1999). Authority is negotiated relationally; it is established through the visible alignment of voices and the explicit acknowledgment of individual scholars (Thompson & Tribble, 2001). This essayistic tradition, while highly valued locally, is often perceived as “less critical” or “lacking evaluation” when judged by rigid, Anglo-centric standards. Yet, it represents a valid epistemological stance that prioritizes human agency and dialogic solidarity over clinical impersonality (Garcez, 2019).

2. The Rhetoric of Empirical Demonstration (Applied Linguistics)

Conversely, *Applied Linguistics* embodies a highly professionalized, depersonalized scientific ethos (Hyland, 1999, 2000). Here, the primary mode of persuasion is not the mediation of authority figures, but the presentation of objective, empirical evidence (Swales, 1990). By placing the cited author in parentheses (non-integral) and using verbs of discovery like *find*, *show*, and *propose*, the writer backgrounds the human agent and foregrounds the data or the research findings (Hyland, 1999; Petrić, 2007). In this framework, knowledge is treated as an autonomous entity discovered through empirical methods, rather than a negotiated social agreement (Hyland, 1999). To fit into this community, writers must assume a depersonalized stance, presenting their arguments as logical outcomes of synthesized literature rather than personal dialogues (Petrić, 2007). This standard, which has become dominant globally, acts as a powerful filter, forcing Global South writers to abandon their local rhetorical heritage if they wish to publish internationally (Lillis & Curry, 2010; Sah & Fang, 2025).

Implications for EMI and Epistemic Justice

The contrast between the relational, dialogic style of RBLA and the empirical, depersonalized style of *Applied Linguistics*has important implications for academic writing instruction and the internationalization of higher education in the Global South. As universities in Brazil and other non-Anglophone countries expand academic writing courses, they often do so under a “rhetoric of excellence,” assuming that learning to write in English will facilitate local scholars’ integration into the global research community. However, as McCulloch and Indrarathne (2023) demonstrate, writing in English is insufficient if the implicit and highly conventionalized rhetorical norms of Anglophone academia remain opaque.

The preference in international journals for non-integral citations, synthesized generalizations, and impersonal evidence-based reporting represents a significant barrier for Global South researchers (Lillis & Curry, 2010). Raised in a relational, author-centered publishing tradition (as exemplified by RBLA), Brazilian scholars may write drafts that, as highlighted by Lillis and Curry (2010), international reviewers and editors frequently reject for being “too descriptive” or “lacking a critical stance”. This perceived weakness is often attributed to what Petrić (2007) defines as “relying too heavily on direct quotation” to establish authority. This clash of conventions is not a failure of basic language proficiency, but a fundamental conflict of rhetorical paradigms (Garcez, 2019). When international journals mandate a single, depersonalized style, they enact testimonial injustice, deflating the credibility of Global South scholars who communicate through different, culturally situated traditions of authorship (Fricker, 2007; Kerfoot & Bello-Nonjengele, 2023).

From Mechanical Compliance to Rhetorical Pedagogy

This conflict highlights the need to adopt a more context-sensitive approach to academic writing instruction in EMI contexts. Currently, academic writing and citation instruction in higher education is dominated by two paradigms:

- **The Ethical Approach:** Focuses on the moral dimensions of academic integrity, primarily warning students against the dangers of plagiarism (University of British Columbia, n.d.)
- **The Mechanical Approach:** Concentrates on the technical compliance with style guides (e.g., APA, MLA), teaching students where to place periods and parentheses (University of British Columbia, n.d.)

Neither of these approaches seems to address the rhetorical reality of citation. When citation is taught mechanically, students view it as a tedious rule to avoid punishment, leading to ineffective paraphrasing, “patchwriting,” or a random dropping of citations without rhetorical purpose (Petrić, 2007; Gong et al., 2025).

To ensure egalitarian higher education, academic writing programs must adopt a Rhetorical Approach to citation pedagogy (University of British Columbia, n.d.). This lens shifts the focus from “how to format” to “how to position”. Instructors must make the implicit power dynamics of academic writing visible, teaching students that:

1. Integral citations and verbs of saying (e.g., *state*, *point out*) are strategic resources to construct a highly visible dialogic space, honoring predecessors and establishing relational authority.
2. Non-integral citations and verbs of discovery (e.g., *find*, *show*) are rhetorical tools used to signal objectivity, align with empirical consensus, and meet the stylistic expectations of high-impact international outlets.

By making these conventions transparent, we move away from a deficit model that treats Global South writers as “incompetent” or “deficient” (Canagarajah, 2018). Instead, we empower them as multilingual negotiators who can consciously and strategically choose their voicing patterns to navigate the global academic market without losing their local intellectual identity.

Conclusion

This comparative corpus-based study has shed light on citation as not merely a mechanical formatting practice but also a political and epistemic act. The contrasts between RBLA and *Applied Linguistics* reveal two divergent epistemological traditions. RBLA embodies a relational, dialogic ethos that values human agency, direct quotation, and the mediation of authority. In contrast, *Applied Linguistics* represents a depersonalized, evidence-centered scientific ethos that prioritizes synthesized findings and empirical consensus.

As higher education becomes increasingly internationalized, the uncritical enforcement of a single Anglo-centric rhetorical standard in academic writing courses and EMI programs risks perpetuating epistemic injustice and marginalizing the diverse voices of the Global South (Sah & Fang, 2025). Building a more inclusive and equitable academic landscape therefore requires writing practices and pedagogies that recognize rhetorical and epistemological diversity. Attention to power relations in citation practices can contribute to academic writing instruction that broadens participation while respecting rhetorical and epistemological diversity.

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19. Rethinking Case Studies: CLIL and the Implications for Undergraduate Students of Public Relations

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Abstract: This chapter focuses on English for Specific Purposes (ESP) courses in an undergraduate Public Relations (PR) program at a public university in the state of São Paulo, Brazil, where all other courses are taught in Portuguese (L1). The objective is to demonstrate how classroom practices that integrate specialized content and the English language engage students and faculty in collaborative, interdisciplinary activities. As part of the assessment in the second of the two ESP courses, students deliver oral presentations on topics and projects explored in other courses during the first three semesters of the program, such as PR techniques, crisis management, and environmental, social, and governance (ESG) criteria. Because case studies (CS) are widely used in the PR curriculum to promote learning, students often choose to present analyses of specific cases. However, experience in the second ESP course has shown that students typically have only a limited understanding of the case study as a methodological approach. Consequently, the defining features of case studies have become an explicit learning objective, with particular attention to the language used to formulate justifications and research aims in academic communication. Over time, student feedback has provided evidence of the perceived benefits of integrating specialized PR content with opportunities to develop advanced foreign-language skills.

Keywords: ESP, CLIL, ICLHE, Brazil, higher education, classroom research.

Introduction

The undergraduate Public Relations program at UNESP (São Paulo State University) is offered on the Bauru campus, a city with nearly 450,000 inhabitants located in the central region of the state. It is an eight-semester program with evening classes during the week (7-11pm), and between 8 am and 12 noon on Saturdays. All the courses are delivered in Portuguese – except for two required ESP courses in which classes are conducted mostly – if not entirely – in English. Fifty students are admitted yearly, and the vast majority will graduate within the planned four years. The age range is typically between 18 and 21 at admission, and most students move to Bauru to study and come from other cities in the state. It is not unusual for several students to commute between their hometowns and the campus, especially in the first year of the program, using shuttle buses for journeys of 30–60 minutes.

In addition, it is important to mention that the typical PR student will have a job, internship or other regular activities during the day – including undergraduate research, extension projects, and participation in the university's junior enterprise (most often 6 hours a day). The student population is predominantly female, and overall English proficiency is typically at the B1–B2 level, although a few students may be above or below that especially in production, interaction and mediation. There are no specific requirements or tests for enrollment in the English courses. The first ESP course (2 credits) is to be taken in the second semester of the program and focuses mainly on written communication, whereas the second course (4 credits) should be completed in the third semester and deals with oral communication. In the ESP and other specialized courses dealing with practical skills, the class is divided into two cohorts of a maximum of 25 students each.

This chapter concerns the latter, four-credit ESP course with a focus on oral communication, and there is no significant difference in schedules, materials, or dynamics between the cohorts, including assessment and grading. The term ESP has been favored this far to highlight the fact that I am a language teacher and that the course is primarily intended to help students refine their knowledge of and skills in English for specific - PR professionals - and academic purposes (EAP). Nevertheless, I identify as an advocate and practitioner of CLIL (content and language integrated learning) as an approach to education in the first place. In addition, the fact that I teach at a public university makes it clear that my routine concerns match the ICLHE agenda, which I offer as justifications for this classroom research/experience, presented at the ICLHE Conference 2025. For a discussion of ESP/EAP, CLIL, ICLHE and other pertinent acronyms, please refer to Concário (2026) and Dafouz-Milne (2021).

For the purposes of this chapter, and in view of the contextualization provided above, I would like to underscore that the scenario is one of cohorts of Brazilian university undergraduate students and a Brazilian professor of English as a foreign language, all of whom are first-language speakers of Portuguese. Therefore, ours is not a case of English as Medium of Instruction (EMI) or English as Lingua Franca (ELF). In fact, my classroom practices are informed by and committed to other configurations of CLIL/ICLHE. In my courses, some lessons will manifest weak(er) CLIL traits, when there is a primary concern for lexicogrammar and modes of communication in English, or - in broader terms - genre, discourse communities, rhetoric and so on. On the other hand, some lessons may favor strong(er) CLIL practices, when there is a major interest in content that is of special relevance for PR students, e.g., PR strategies; storytelling; crisis management; environmental, social and governance criteria; and the case-study methodology. The last of these is the specialized content that has been prioritized in the experience I am reporting at this time.

Oral presentations and case studies

Professional English: oral communication for Public Relations (4 credits) is delivered over 15 weekly face-to-face sessions that start from 7:00 to 11:00 p.m., with a break of 20-25 minutes. The sessions are organized around topics related to what students encounter in other courses of the PR program, especially in their first two years of study. In other words, the ESP course is designed according to the theme-based model for CLIL or content-based language instruction (Brinton et al., 2003), and a range of texts is selected, adapted and written to deal with content related to, e.g., crisis management, ESG criteria, and PR strategies and techniques. Language work centers on pronunciation practice and public speaking, the organization of glossaries, verb tenses in specific parts of academic papers, hedging, expressing facts and opinions, typical constructions in (im)personal reports, and resources for autonomous language practice, among others. There is always an oral presentation that students begin to prepare after week 5/6 and present between Weeks 10-14. This presentation is required to contain: (a) an introduction; (b) a description of sources that have been used; (c) a discussion of how the topic is addressed

in the source(s) and how it relates to other courses or experiences in the early years of PR; and (d) a wrap-up stage in which the presenter(s) report on the experience of preparing and delivering the presentation in English.

For this presentation, students can choose to work individually or in groups of up to four students. They are also free to choose topics and sources, as long as a connection is established with PR in general, with courses that students are currently taking, or others that have been completed in the previous semesters. Every student is expected to speak in the presentation, which can be given live, or through a video that needs to be introduced and played in class. A typical live presentation given by one single student will take 10-15 minutes, whereas a group of four students will probably present in 25-30 minutes. Previously recorded videos are expected to be shorter: 6-8 minutes for one presenter, and no more than 20 for a group of four students. Regardless of format or number of participants, the duration of the presentation must be stated explicitly in the introduction. Support and guidance are provided to the students in class, to help them choose both topics and sources, and prepare their presentations.

Over the years of teaching this course to PR undergraduates, I have noticed that a strategy is favored in their presentations which is used in other courses they take with my colleagues: students choose to report on a “case” to make their points clearer. Undoubtedly, this communication technique mirrors the ways faculty in different fields of communication, marketing and management teach. However, what students normally include in their presentations as a “case” falls short of what is expected in CS methodology/reports, at least in more traditional academic terms (Nunan, 1992; Priya, 2021; Smith, 1978; Stake, 1994; Yin, 2009). Although I will address this issue below, for now I want to give a spoiler and add a cultural remark that has become a household joke with my students.

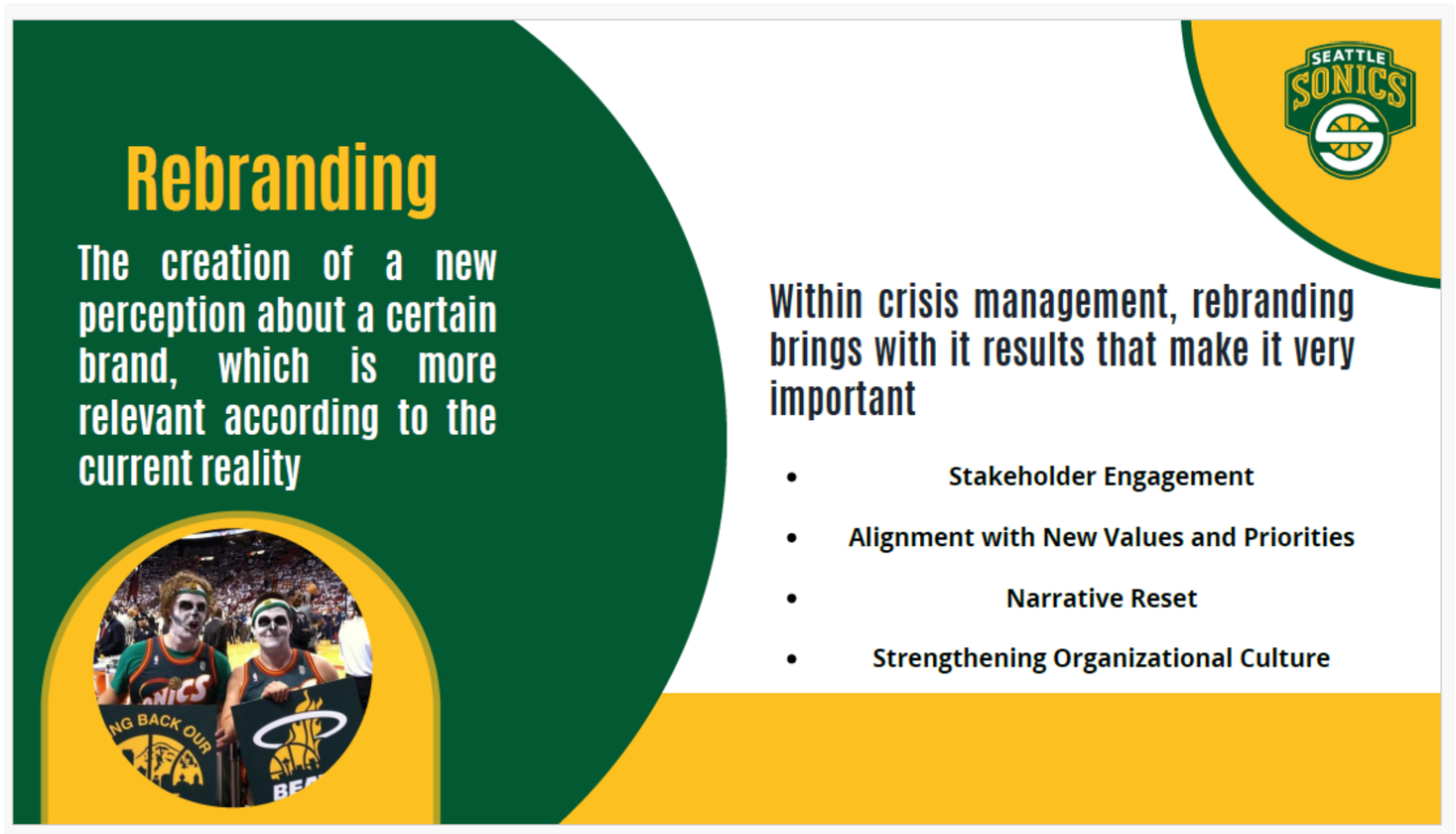
The Portuguese word for “case” is *caso*, hence *estudo de caso* for CS. In different parts of Brazil, there is a similar, related word which is used as an equivalent for “tall tale”, or “a folksy story”: *causo*. Given this background information, the contrast between *caso* and *causo* is sometimes used in my classes to highlight the differences between (1) building and reporting a case in professional/academic language, and (2) passing on a story in ways that might sound like hearsay or folk wisdom. The pun is intended as a pedagogical aid even though there is no reason to downplay the contributions of knowledge expressed in non-academic guises.

In the following sections of this chapter, I provide an overview of two presentations before I decided to deal with CS more overtly in my course (2023 and 2024). Then I briefly review the main points in the CS literature I have selected and describe one presentation given by a group of students in the first semester of 2025, when I dedicated even more classroom time to hard CLIL as students read, talked and wrote about CS. This included the use of ChatGPT and Copilot for enhanced interaction with the content. Finally, in the section titled “Main takeaways”, I summarize my personal considerations on how CLIL still works best for me as an approach to education in general, how ICLHE provides exciting opportunities as a practitioner specialized in language teaching, and how the swaying between hard/strong and soft/weak CLIL can be accommodating for faculty and – above all – students.

2023 and 2024 – The feeling that CS demanded explicit study

A group of three male students presented live on rebranding as a crisis management strategy (Figure 1). The presentation lasted 12 minutes and used approximately ten Power Point slides that, in addition to looking great, provided an excellent example of how visual materials and presenters' oral delivery should interact with and complement each other. The speakers reviewed the foundations of rebranding and explained how the notion of "social drama" helps to understand a crisis, when a breach is generated and affects stakeholders (the disturbance), and the redressive actions that – if successful – may lead to reintegration, or will otherwise produce a schism.

Figure 1. Screenshot of first slide, group presentation 2023



The three presenters, who are sports enthusiasts, chose the "case" of the complex relocation of a basketball team from Seattle, in northwestern USA, to Oklahoma City, in the south-central region of the country, between 2006 and 2008. Although the presentation impressed very positively other students and myself, and the speakers did mention the source they used to prepare, key information about the CS was not reported: (a) that the original report had been published online as the work of a former president of a College Bowl (sports quiz) who majored in Communications, (b) the main stakeholders in the plot – for example the city officials (in Seattle), the head of a basketball team (investor who was required to pay heavy fines), basketball fans in either city, and (c) details about Oklahoma City, which allegedly caused it to be a promising city for the team's transfer. In other words, although the presentation had its many highlights and was a very good example of how PR students used English to deal with a relevant topic in the program, it failed to explain how the CS had been publicized, why the keyword "plunder" had been used in the title of the source, and what other key features were of the bounded system in which Seattle SuperSonics is a protagonist, i.e., the single instance of crisis and rebranding under analysis (Morris, 2009).

Another very good presentation is described below to illustrate the student's motivation, the relevance of the topic, and how the student worked hard despite her alleged difficulty to speak English in public. In this case, a single student prepared and presented material for eight minutes in class, also using great visual materials (Figure 2). She self- identifies as a female black student who grew up in the outskirts – the term periphery is often a more immediate choice for first-language speakers of Portuguese - and decided to present on (the work of) a Brazilian artist, singer, MC – *Emicida*.

Figure 2. Picture used on the second slide to explain topic, single-student presentation 2024.

Source: https://cebds.org/noticia/documentario-amarelo-de-emicida-e-uma-aula-de-historia-do-brasil/

The heart, the text, and details of the artist's hooded windbreaker feature in yellow whereas the other parts of the picture are in black. The words below the artist's name "AmarElo. É TUDO PRA ONTEM" were not translated or explained by the student, but she did say that she had chosen that topic to illustrate alternative channels for communication, and how one communicator can represent excluded voices and, thus, help promote multicultural artistic manifestations of the urban periphery. According to the student – and many other Brazilians – Emicida has been actively promoting the much-needed debate about the problematic history of Brazilian blackness, how Black culture was demolished, erased or demonized since the country was the last one in the Americas to abolish slavery. The student wanted to focus, therefore, on how civic

engagement can become more successful when artists use effective PR strategies to promote their agenda and work, and themselves.

Again, although the student cited a review of a documentary as her source (Jesus, 2021), it was not clear whether the presentation itself reflected the student's own interpretation and opinions about the 90-minute documentary that Emicida produced to show behind the scenes of his 2019 album (both the album and the documentary titled "AmarElo"), or if the presentation was her rendering of the review which she read in Portuguese. In other words, if "Emicida is a case", what are the defining characteristics that are being analyzed, by whom, and based on what?

To illustrate how this lack of information can affect communication between speakers and the audience, let me share something else about this example: I was not familiar with Emicida's album/documentary *AmarElo*, and I found the presentation given by the student extremely powerful and thought-provoking. So, after she had finished, I felt tempted to ask about the details shown in Figure 2. I wondered if she agreed that *AmarElo* (visually equivalent to YelLow) was deliberately written so it could be read as a combination, in Portuguese, of *Amar* (Love) + *Elo* (Link). The student said she had not noticed that about the title, nor was she able to explain the caption "*É tudo para ontem*" (Needed for yesterday / It is all for yesterday) in the title of the documentary. She said she did not recall reading about the title, the wording or the fonts in the source she consulted. This does not necessarily mean that the effect of the presentation on me or the class suddenly became less appreciated. On the other hand, the chat and feedback that followed helped her explain the role of the source (review of the documentary) and her own ideas about the artist and the documentary that she had actually watched. In addition, she acknowledged that my question and comments had drawn her attention to communication strategies, intertextuality and Semiotics (something else she had studied in another course, "Introduction to Language Studies", taught in Portuguese (L1)).

For the sake of clarification, I resorted to the internet to find out about *AmarElo*. Apparently, it is a reference to the poem "Loving is a link" by Brazilian poet Paulo Leminski (1944-1989): "loving is a link between blue and yellow". I also learned that "*É tudo pra ontem*", as used in the title of the documentary, highlights the urgent nature of the debate it seeks to promote.

I trust that the examples described above have convinced the readers of my students' good intentions, committed attempts and strong deliveries. These and other presentations demonstrate they have been learning narratives that help them engage with central issues in PR. However, the ways students communicate in the presentations suggest that it is necessary to distinguish CS from *causos*. In other words, detailed description and analysis are fundamental traits of CS. My concerns about this have been validated in conversations with other faculty: inadequate reception, interaction, mediation and production regarding CS in my course cannot be explained by limitations in English. In fact, their difficulties have to do with lack of mediated experience concerning the characteristics of CS methodology, and how CS should be reported. I remain convinced that CLIL, as an approach to education, can help in situations like this despite criticisms (cf. Bruton, 2013; Hüttner & Smit, 2014).

2025 – Focus on CS and possible implications: where has the Case Study gone?

As mentioned above, the experience of having oral presentations in the course suggests that students can benefit from an explicit focus on CS in the lessons. Thus, in the most recent edition of the course, part of three sessions included reading, discussion and writing about the topic in ways that are more typical of strong CLIL (Brinton et al., 2003). I first prepared slides to draw students' attention to key aspects of CS methodology, based on seminal publications in social sciences, language teaching and management that highlight the qualitative nature of the approach to inquiry (Nunan, 1992; Smith, 1978; Stake, 1978, 1994; Yin, 2009).

The main objectives were to underscore that a "major part of case study research is the report" (Stake, 1994), and to explain that students were not expected to plan and carry out their own first-hand study of a case for the presentations. In fact, they could pick out a CS report – originally publicized/published in the language of their choice and render a review of that report. In other words, students continue to be encouraged to do documentary research, critically read a CS if they choose to do so, and explain if the case is of an interpretive, exploratory, or intervention nature, for instance (Stake, 1994). Other possible features of a CS to be noted are if the study has been essentially motivated by intrinsic goals, i.e., to describe and explain "the instance", or whether the goals are instrumental, i.e., the CS represents a means to achieve an end external to the actual case. Of course, the interest in a reported CS can be the product of a combination of factors, but when students review a CS conducted by someone else to help them deal with specific topics in PR, it is very likely that the particular report has been chosen for an instrumental reason.

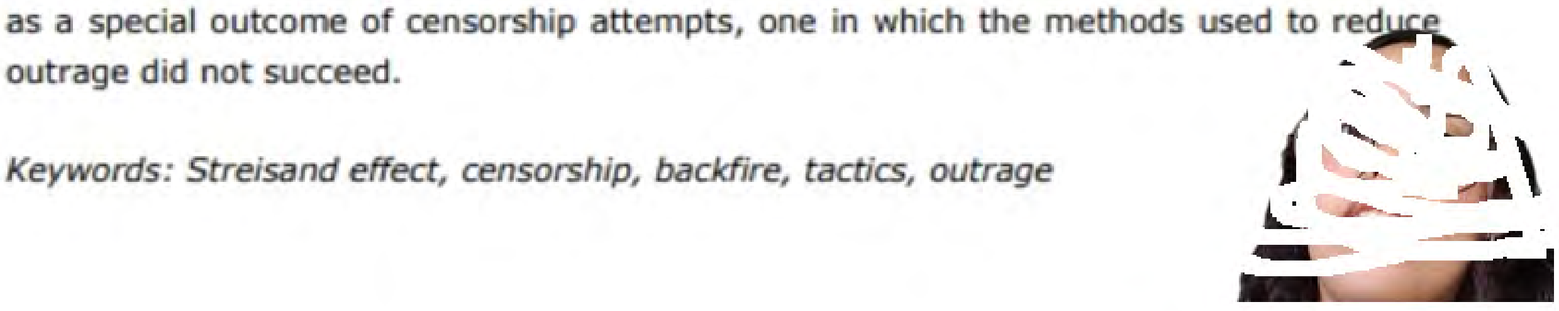
Thus, in their presentations, students are expected to justify and contextualize why they have chosen the CS they are reporting on, making clear what their goals are in comparison with the objectives of the person(s) who conceived and carried out the original exploration, description, intervention and so on. Therefore, reporting is expected to include explicit references to the original source and, above all, how the bounded system and the particular instance of a phenomenon have been framed in the sources students are using (Smith, 1978; Nunan, 1992).

To deal with the intricacies and conventions of CS, I have chosen to ask students to read a recent paper (Priya, 2021) on their own and then do an interactive task in class. After reading the abstract and the conclusion aloud with the students, the class was divided into pairs or groups of three students. Some groups should review pages 95-97, others should focus on pages 98-101, and different groups on pages 101-104. Each group should then prepare diagrams or slides to summarize the main ideas in the parts they reviewed. The classroom discussion went on to answer whether students had learned about that content in other courses of the PR program, and – if so - which additional references they could recall in English or in Portuguese.

Finally, as a follow-up activity, students were required to write a prompt, in Portuguese or in English, and use ChatGPT or Copilot to obtain a text, in English (800-1000 words), concerning

the main characteristics of a good case study. The prompt should call for a text at C1 level, suitable for Brazilian undergraduate students in the early years of a PR degree. The objective was to compare the "content" and the "language" in Priya's paper with the AI output, while encouraging students to search for more reader-friendly "input". Later in the semester, when students began to prepare their presentations, they were told to take that classroom experience into consideration.

Figure 3. Screenshot or pre-recorded video used for a group's presentation 2025.



Barbra Streisand's attempt to restrict online views of her residence on a public website had the paradoxical effect of leading to many more views than if she had done nothing. Subsequently, attempts at censorship that end up being counterproductive have been dubbed the "Streisand effect." To better understand the dynamics of the Streisand effect, we examine five tactics used by censors to reduce outrage from their actions: (1) hiding the existence of censorship; (2) devaluing targets of censorship; (3) reinterpreting actions by lying, minimizing consequences, blaming others, and using benign framing; (4) using official channels to give an appearance of justice; and (5) intimidating opponents. Within this framework, the Streisand effect can be understood as a special outcome of censorship attempts, one in which the methods used to reduce outrage did not succeed.

Keywords: Streisand effect, censorship, backfire, tactics, outrage

Figure 3 shows part of the introduction in a 14-minute video, produced by three students, for their presentation on a topic they had studied in a previous course: the Streisand Effect. Students explained that they had become familiar with the term in one "Public Relations Laboratory" course, taught in Portuguese (L1). They also said that their purpose was to make a connection between my ESP course and what they had studied previously, and that the opportunity to read new and old material about the topic for a presentation in English meant – for them – a great opportunity to revisit and expand the content as they practiced English. The presenters explained that their presentation was mainly based on a paper by a professor of media and communication in the US, and a professor of social sciences in Australia (Jansen & Martin, 2015). They also cited a blog which helped them find simpler explanations for ideas connected to their presentation (Olajide, 2024).

The video that students played in class was very organized and clear, and they were careful to indicate the personal goals with the presentation, and the main characteristics of the paper and blog they chose as their main sources. It was clear that they had rehearsed the presentation and edited the video to share up-to-date information, and they talked about how they did the work in the wrap-up. It is interesting that the term "case" was used seven times throughout the video – always as a substitute for words like *example*, *attempt*, or *event*. The term "case study" was not used at all, and this omission was noted – to my surprise – in all the other presentations in the first semester of 2025.

To be fair, the fact that CS was not explicitly mentioned in the video I chose has not compromised the quality of that group's presentation. In fact, the students introduced their topic (Streisand Effect) and explained that the term had been coined to illustrate how censorship can backfire, thus bringing an issue to the public's attention instead of burying it. As such, the reference in passing to the *case* of a photographer being sued by Barbra Streisand – for publicizing a photograph of her property - was the anecdote to explain the dubbing of "attempted censorship actually increasing the circulation of information/*exposés*" as such – a *causo* not to be taken for a CS.

Actually, the presentation made it clear that the students wanted to address the issues of freedom of speech, social media, and how censorship may backfire. Throughout the video, they explained why the paper and blog helped them think about and report on methods to avoid public outrage and deal with client reputation. They cited situations where censorship or propaganda has backfired, concerning ancient Greece, cinema, and the Nazis. Interestingly, for the students, the term Streisand Effect seemed to put "a name" to the phenomenon even though they admitted to having no idea who Barbra Streisand looks or sounds like.

Main takeaways

Let me deal with the implications of this work in progress for my future students, and the short-term adjustments that I expect to start experimenting with in exactly four weeks from the moment I am working on this manuscript. Before doing that, though, some words on the grading of presentations can be helpful.

As explained in a previous section, the instructions for the presentations are that they need to have an introduction, a descriptive move, an argumentative/opinion part, and the wrap-up, regardless of the number of students. Although the opening calls for an introduction, some elements can be rearranged to suit personal preferences, which means that a final grade can only be figured out when the presentation has ended. Table 1 shows the rationale for assessing and feedbacking the presentations, and it is used as a checklist for my questions and comments after each presentation has been given. Students learn about this checklist as they prepare the presentations, and I also explain that each part will be scored between zero and ten, and that a minimum of five points is awarded if that part can be easily identified, even if incomplete. Grammar, pronunciation, spelling, and inadequate word choice will not significantly affect the grade (more than one point). Students are allowed to read notes and encouraged to include subtitles if they use videos. One grade is calculated for the presentation (the same for all speakers), which is the average of the scores in each indicated part. The presentations included in this chapter were awarded a final score between 8.0 and 9.5 points.

Table 1. Reference for assessing presentations and organizing teacher feedback.

Introduction	If a video is used, a few words to cover what may not be in the video; The choice of topic/source is explained (justification), related to PR; Duration; Keywords, how the presentation is organized, rules for the audience?
(Source) description	What type of material, where it can be found, language; Other things verifiable in source: authors, length, sections, style; Quotes, graphs/charts, segments of particular relevance/interest.
Discussion	Agree/Disagree/Link – framing the topic/source within PR; Recommendations/warnings for the audience.
Wrap-up	Dealing with language (vocabulary, text, pronunciation); Preparation and delivery – how does it feel now that it has been done?; Useful resources, suggestions and feedback to teacher/other students; Knowledge about the topic.

The most striking finding when I compared my notes and the grades for the cohorts in 2023 and 2024, with those for the cohorts of 2025, after the explicit instruction on CS, was that there was no mention in the latest edition of the course that a presentation had been prepared based on a case study report. Overall, students seemed more careful to demonstrate reference to content in the sources they used. However, the descriptive accounts were generally too hasty and limited to authors, where the material was found, the language (if Portuguese or Spanish), and the title. Most presentations were based on peer-reviewed papers available online, or chapters in specialized books. In any case, CS was never explicitly mentioned.

In response to this unexpected finding, I plan to collect data in the upcoming semester to look at: (1) how students in the 2026 cohorts will respond to a survey about CS/content-language integration after I share parts of this chapter with them; and (2) how many students who were admitted in 2022 and graduated in 2025 chose to work with CS in their graduation project. These goals are to be discussed with PR colleagues in the meeting that precedes the start of the courses, and I hope they can collaborate.

Based on these findings, and considering what I saw and heard during the 8th Integrating Content and Language in Higher Education Conference, I wish to share a few concluding remarks:

(a) maybe my expectations about the relevance of CS in PR in my own case study are unfair and unrealistic for undergraduates: more and more often, students seem to find it difficult to deal with long texts and detailed explanations. Thus, it may be that optimal CS reports nowadays do not correspond to my old-school references. If that is true, then new ways of approaching both content and language are needed;

(b) on the other hand, if there is a place in the undergraduate PR program for the kind of content and sources I have mentioned in this chapter, then students, faculty and administrators should pay closer attention CLIL – and, in this case, particularly ICLHE: content is learned and

demonstrated when it is *languaged*, and *languaging abilities* can be exercised and cultivated when we handle more elaborate content. In this sense, the first L in CLIL - and the L in ICLHE – must be understood as ANY language;

(c) in the case of additional/foreign languages and – especially – English in higher education in Brazil, I personally feel generalizations are naive, if not reckless. As I mentioned at the opening of this chapter, mine is a context of ESP. In this setting, my experience is that students are openly appreciative of teachers who are highly proficient in the target language even if lessons sway back and forth along the weak-strong CLIL continuum;

(d) although my teaching experience in EMI/ELF has been limited to campuses located in three cities (out of 24) where my university operates in the state of São Paulo, Brazil, and one doctoral program in Italy, I suspect that the enthusiasm voiced by faculty who identify as EMI teachers is not shared by students in classes that are predominantly monolingual – especially if the instructor cannot demonstrate expertise in English.

More classroom research, and data collected with and among students, will certainly contribute to advancements.

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20. Plans in Action: Integrating Language and Methodology in a Teacher Education Context

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Abstract: This paper reports on *Plans in Action*, an optional course developed within a public Portuguese and English teacher education program in Brazil as a response to persistent challenges in students' English proficiency and limited opportunities to appropriate communicative, learner-centered pedagogies. Grounded in Content-Based Instruction (CBI) and Integrating Content and Language in Higher Education (ICLHE), the course combines experiential language learning with systematic methodological reflection, using English as a mediating language for both pedagogical practice and analysis. The study describes the theoretical rationale, course design, and illustrative classroom practices implemented across two semesters, highlighting its dual structure, a language-focused "student layer" and a content-focused "teacher layer". Instructors' observations and informal student feedback suggest that this integrated design fostered increased awareness of lesson structure, and growing confidence in the use of pedagogical metalanguage in English. Although not institutionally conceived as a formal ICLHE initiative, *Plans in Action* functioned as a locally responsive form of internationalization at home (IaH), expanding access to English-mediated academic participation within an under-resourced public higher education context.

Keywords: CBI, ICLHE, Teacher education, Internationalization at home, Reflective practice.

Introduction

The landscape of education in Brazil, despite notable advances in recent decades (Dias, 2023), particularly within the federal education system, remains marked by profound disparities, especially with regard to access to quality additional language instruction. Persistent structural problems in state and municipal schools,[39] such as inadequate instructional hours for English, lack of investment in pre-service and in-service teacher education, and low teacher salaries, continue to result in students completing secondary education with minimal English proficiency. These systemic shortcomings have direct consequences for teacher education programs, which are tasked with preparing future English teachers under conditions of linguistic and educational constraint.

As professors within the *Letras* program[40] at the State University of Minas Gerais (UEMG)[41], located in the city of Ibirité, we observe the repercussions of this systemic failure daily. Our

39 According to the Brazilian educational legislation, responsibilities for public education are distributed across different levels of government. Municipalities are primarily responsible for early childhood (for children aged 0 to 5) and primary education (for students aged 6 to 14), corresponding to *educação infantil and ensino fundamental*. States are mainly responsible for upper secondary education (for adolescents aged 15 to 17), known as *ensino médio*. The federal government is responsible for maintaining the federal higher education system and coordinating national policies for higher and professional education (Brasil, Constituição Federal de 1988; Lei nº 9.394/1996). In addition to the public system, the private sector is legally permitted to operate at all levels of education, a feature that has historically contributed to educational inequality in the country.

40 The *Letras* program at UEMG Ibirité is a double-major undergraduate degree in Portuguese and English that prepares students to teach both subjects in *ensino fundamental II and ensino médio* (which corresponds to students from 11 to 17 years old).

41 UEMG (Universidade do Estado de Minas Gerais), or the Minas Gerais State University, is a public, tuition-free university that operates as a multi-campi institution with academic units spread across 19 cities in the state of Minas Gerais. It is the third-largest public university in the state, serving over 23,068 students. The university offers 161 undergraduate programs, and several master's and doctoral degrees in various fields of knowledge. UEMG plays a key role in decentralizing and democratizing access to higher education in Minas Gerais.

campus serves a demographic of young adults who primarily reside in the outskirts of the Belo Horizonte metropolitan area. These students often begin their university journey with little to no prior proficiency in the English language, a direct legacy of an under-resourced basic education system. Within a demanding and academically rich curriculum, largely focused on linguistics, applied linguistics, and literature, students with low initial proficiency in English face the additional burden of attempting to remediate this gap from their basic education alongside the regular demands of the program. For these students, in particular, the nine semesters of the course may feel both demanding and insufficient. This pressure is further compounded by the fact that the majority of our students work full-time during the day and attend classes in the evening, leaving very little time for the autonomous study required for language learning.

Students and faculty recognize the gravity of this mission. Upon graduation, these students will return to the school system as teachers themselves; thus, improving their proficiency is a prerequisite for breaking the cycle of poor language instruction in public schools. An additional layer of complexity lies in the fact that these students are expected to master the language while simultaneously learning how to teach it, often without having experienced positive, learner-centered pedagogical models in their own educational trajectories.

For many undergraduates, however, the Letras program represents more than professional qualification: it functions as a pathway to broader social and academic mobility, particularly through access to English, resonating with socially oriented interpretations of Integrating Content and Language in Higher Education (ICLHE) (Baumvol & Sarmento, 2016, 2019). As we discuss below, this dimension of the course extends beyond language learning itself, situating *Plans in Action* within broader debates on internationalization in Brazilian higher education.

Against this backdrop, this paper reports on the design and implementation of *Plans in Action*, an optional[42] course developed within the *Letras* program. The course emerged from a recurring observation in our teacher education practice: despite being exposed to contemporary, student-centered methodologies at a practical and theoretical level during their undergraduate studies, pre-service teachers frequently reverted to traditional grammar-translation approaches when designing their own lessons. We hypothesized that this form of methodological inertia reflects students' own educational trajectories, which have often provided limited opportunities to experience sustained communicative language learning. Although students encounter these contemporary methodologies throughout their coursework, such experiences alone do not necessarily translate into pedagogical appropriation. We therefore assumed that creating systematic opportunities for students to first experience these practices as language learners and then revisit them as prospective teachers, examining their pedagogical rationale through concepts introduced previously in their methodology courses, could better support the internalization of these approaches and later enactment in their own teaching.

42 The course was offered simultaneously under two institutional modalities. As an *optativa*, it functioned as an optional course within the Letras curriculum; as an *eletiva*, it was open to students from other degree programs. In both cases, students could enroll according to their interests and availability.

Plans in Action addresses this challenge through an integrated pedagogical structure that combines experiential language learning with structured pedagogical reflection. The first phase of each class consists of a theme-based, task-based, or project-based English lesson, providing sustained opportunities for language development through meaningful communication. In the second phase, the lesson itself becomes the object of analysis, as students revisit the learning experience from a teacher education perspective, examining the pedagogical decisions, instructional sequence, and methodological principles that informed its design. Also conducted in English, this reflective phase enables students to deepen both their professional understanding and their ability to engage with pedagogical content through the target language.

While conducting language teacher education in the target language has long been a globally established pedagogical practice, it remains challenging in under-resourced contexts where many students enter university with limited English proficiency. As a result, theoretical and methodological discussions frequently shift to the students' first language. By sustaining both experiential language learning and pedagogical reflection in English, *Plans in Action* expands opportunities for future teachers to develop disciplinary knowledge and professional metalanguage through the target language, while remaining responsive to the realities of Brazilian public higher education.

This paper presents theoretical rationale, course design, and illustrative classroom practices associated with this model, with particular attention to the implementation of the theme-based module. We argue that integrating experiential language learning with structured pedagogical reflection provides pre-service teachers with richer opportunities to appropriate communicative teaching practices while simultaneously developing their English proficiency within a context marked by educational inequality.

Theoretical Framework

The two phases of Plans in Action are grounded in complementary theoretical traditions. Structurally, students first experience an English lesson as language learners (the student layer) and subsequently analyze its pedagogical design as prospective teachers (the teacher layer). These two layers can also be described in terms of instructional focus. The student layer corresponds to a language-focused phase, in which English itself is the object of learning, while the teacher layer corresponds to a content-focused phase, in which pedagogical knowledge and instructional design become the object of learning.

As mentioned in the introduction, the language-focused phase of Plans in Action encompasses three learner-centered pedagogical approaches: theme-based, task-based, and project-based instruction. While the broader course incorporated these different models, this paper focuses specifically on the implementation of the theme-based lessons. Situated within a Communicative Language Teaching (CLT) framework, Theme-Based Instruction organizes activities around a communicative theme rather than isolated linguistic forms, creating sustained opportunities

for meaningful language use (Brinton et al., 2003). In this first phase, students participate in an English lesson anchored in relevant everyday topics, experiencing the kinds of interactive practices that they later examine from a teacher education perspective in the reflective phase of the course. Language development is approached holistically, integrating skills while treating grammar and vocabulary as resources for meaning-making rather than as isolated instructional targets (Harmer, 2015; Richards & Bohlke, 2011).

In the reflective phase of Plans in Action, the teacher layer, students analyze the methodological rationale behind the lesson they just experienced. Theoretically grounded in Content-Based Instruction (CBI) and ICLHE, this phase treats pedagogical knowledge, instructional design, and teaching metalanguage as the primary content to be learned. By using English as the medium to discuss lesson planning and classroom interaction, the course aligns with ICLHE perspectives, which conceptualize the higher education classroom as a space for the co-construction of language, disciplinary content, and professional identity (Dafouz & Smit, 2016).

Within this ICLHE landscape, the course also resonates with socially oriented goals of internationalization. Research on higher education in emerging contexts has proposed IaH as an alternative to internationalization understood primarily as an institutional strategy to attract global talent. This orientation foregrounds the use of English to enable local students to access international academic literature and professional communities without relying on physical mobility (Baumvol & Sarmento, 2016, 2019; Almeida et al., 2019). Although not conceived as a top-down institutional policy, Plans in Action aligns with this orientation, functioning as a locally responsive space that expands students' access to English-mediated academic practices.

To connect the experiential and theoretical dimensions of the course, the framework foregrounds reflective practice through post-experiential analysis. This emphasis aligns with research on teacher cognition, which highlights reflection as central to the development of principled teaching practices (Borg, 2015). Drawing on the concept of instructional scaffolding (Van De Pol et al., 2010), the reflective phase is carefully structured to account for students' varying degrees of familiarity with linguistic and pedagogical metalanguage. Pedagogical support is gradually reduced as learners appropriate the necessary terminology to analyze lesson design, allowing them to revisit classroom practices not only as learners but also as prospective teachers critically examining instructional choices.

At a micro-structural level, elements of the Presentation–Practice–Production (PPP) model (Harmer, 2015) are employed flexibly to support clarity and progression. Learning outcomes are broadly aligned with descriptors from the Common European Framework of Reference for Languages (CEFR), especially at the A2–B1 levels (Council of Europe, 2001), which functions here as a descriptive reference rather than a prescriptive framework.

Taken together, this theoretical framework positions *Plans in Action* as an ICLHE-informed, content-based pedagogical intervention that integrates language development, pedagogical content, and reflective practice within the specific conditions of English teacher education in Brazil.

Course Design

The *Plans in Action* project was strategically conceived as an optional course designed to complement the mandatory curriculum of the *Letras* undergraduate program at the State University of Minas Gerais (UEMG). The program spans nine semesters and comprises a total of 3,825 instructional hours, distributed among general education subjects, courses focused on the Portuguese language, its structure, literature and pedagogy, and courses dedicated to the English language learning, its structure, literature and pedagogy.

Within this dense curricular structure, *Plans in Action* was developed as a pedagogical response to the challenge of expanding opportunities for meaningful English language use and contact with exemplary teaching practices. The mandatory English-specific curriculum is comprehensive and demanding, requiring students to complete six semesters of English language instruction, one semester of English syntax, one semester of English phonetics and phonology, and one semester focused on oral production. This linguistic foundation is complemented by four semesters of English literature and three semesters of English language teaching methodology, in addition to mandatory teaching practicums (*estágios*), during which students observe regular school classes and engage in their first supervised teaching experiences. However, for students who enter the program with limited English proficiency, this mandatory load is, as already mentioned, often insufficient to bridge the gaps from their prior basic education while simultaneously mastering pedagogical theory.

In addition to the mentioned mandatory courses, students are required to complete at least four optional courses and one elective course. These components are intended to complement the core curriculum by addressing specific areas of interest and emerging academic or professional needs. As it is common in higher education, faculty members may propose different topics for optional and elective courses, often in response to perceived student needs, contemporary issues, or recent developments in the field. Each semester, a range of optional and elective courses is offered, allowing students to choose according to their own academic interests and professional goals. *Plans in Action* uses this optional/elective space to maximize students' English learning and pedagogical understanding.

According to the university's regulatory framework, optional courses comprise a total of 36 instructional hours per semester. These hours may be organized in different formats, including one two-hour session on a weekday, two one-hour sessions on weekdays, or one four-hour session held on alternating Saturdays. *Plans in Action* was offered twice, in two different semesters. In the second semester of 2023, the course was scheduled as four-hour sessions on alternating Saturdays, while in the first semester of 2024 it was offered in two weekday sessions. As will be discussed later, this difference in course format had noticeable pedagogical implications, as perceived by the instructors.

Another structural feature of the course is that it was jointly conceived, planned, and taught by the two authors. All lessons were collaboratively designed and co-taught, which enriched

both the instructional practices and the subsequent analysis of lesson plans. This collaborative approach allowed for a wide range of activities and perspectives, as the proposed tasks and analytical discussions were informed by the instructors' distinct yet complementary teaching experiences.

In addition to their experience as university professors in the *Letras* program, both authors have extensive professional experience teaching English in public and private schools, as well as in private language institutes and one-on-one tutoring contexts. One of the instructors (Luciana) has also worked with young learners, while the other (Sandra) has long-standing experience teaching English in public elementary schools within the municipal school system of Belo Horizonte. This cumulative professional trajectory informed both the design of the course and the analytical perspective adopted in this study.

Structured around theme-based, task-based, and project-based learning (see Section 2), the course draws on established principles in language pedagogy (Brown & Lee, 2015; Harmer, 2015). Aligned with learner-centered lesson design (Richards & Bohlke, 2011), this pedagogical architecture was intentionally chosen to model the instructional practices that pre-service teachers are expected to adopt in their future classrooms.

This student layer/teacher layer structure was applied consistently across all lessons, regardless of theme or instructional format, ensuring that students encountered the same pedagogical architecture repeatedly throughout the semester, a repetition that, as discussed in Section 3.2, itself supported the gradual appropriation of metalanguage.

The course's intended learning outcomes reflect its integrated design. By the end of the course, students were expected to demonstrate enhanced communicative competence in English, identify key features of interactive and learner-centered classrooms, analyze and describe the components of didactic sequences, and recognize and compare different lesson plan formats.

The Student Layer

The practical implementation of the *Plans in Action* framework can be illustrated through a detailed analysis of a specific instructional unit. In this paper, we focus on the theme-based approach, which was implemented over two classes offered in the Saturday format. The classes were designed for a group of approximately ten undergraduate students with levels of English proficiency varying from A2 to B2.

The planning of this unit involved several collaborative meetings between the two instructors. The initial step consisted of selecting a theme that would be both relevant to students and pedagogically productive, that is, capable of generating meaningful linguistic input and opportunities for interaction. Following a brainstorming process, *time management* was chosen as the central theme, as it closely reflects the lived realities of students at UEMG Ibirité, who commonly juggle full-time daytime employment with evening university studies.

Once the theme had been defined, the instructors decided to begin the unit with a short, engaging, and easily comprehensible video to create a positive classroom atmosphere and capture students' interest from the outset. Using keywords such as *time management* and *procrastination*, a suitable video was found on YouTube. A complementary reading text was then selected through online searches using the same keywords. These two materials served as the starting point for the development of the lesson plan, from which the sequence of activities and linguistic focus were subsequently designed.

All lessons were designed and delivered using Canva, which supported the clear organization of classes and materials, made instructional stages and transitions more transparent to students, and allowed all course materials to be shared throughout the semester. A brief overview of the activities is provided below.

1st activity: Warm-up

The lesson began with a warm-up activity designed to engage students, introduce the theme, and activate relevant schemata. The selected video shows SpongeBob SquarePants attempting to write an essay assigned by his teacher; however, instead of completing the task, he spends the day engaged in various distractions. Students' viewing was guided by two general comprehension questions. The video introduced the concept of procrastination and effectively prompted students to share personal experiences related to the topic.

2nd activity: Discussion

Following the video, four guiding questions about procrastination were displayed on the board to support a small-group discussion. During the activity, the instructors circulated around the classroom, providing vocabulary support and addressing language-related questions raised by students. The discussion proved highly productive, with learners actively sharing their experiences related to university demands and time management.

3rd activity: Vocabulary

To scaffold comprehension and prepare students for the subsequent reading task, a pre-reading vocabulary activity was introduced. Working in groups, students received slips of paper containing key lexical items from the upcoming text alongside their definitions and were asked to match words to meanings. This step was particularly important given the use of an authentic text and the heterogeneous proficiency levels of the group.

4th activity: Reading

Building on the vocabulary work, the reading phase centered on an online time-management quiz. Students completed the quiz individually and then reviewed their results. Based on their scores, the website generated brief commentaries describing each student's time-management

profile. This activity promoted initial engagement with the text while maintaining a focus on meaning and personal relevance.

In the post-reading phase, students continued working in groups and received ten slips of paper, each containing half of a paragraph presenting time-management tips drawn from the same website. They were asked to reconstruct the full paragraphs by matching the slips, thereby consolidating text comprehension. The answers were subsequently checked and discussed with the whole class.

5th activity: Speaking

Building on the comprehension work developed in the reading activities, students were organized into pairs and each pair was assigned one of the reconstructed paragraphs. Students were instructed to read the text carefully, use a dictionary to clarify remaining lexical doubts, and collaboratively construct meaning. The focus then shifted to oral production: pairs prepared a short explanation of the strategy presented in their paragraph to share with the class. Students were encouraged to explain the content in their own words rather than read aloud, promoting narrative skills and oral fluency.

After this activity, the class took a short break, during which students and instructors shared snacks brought from home.

6th activity: Listening

The listening phase was designed to progress from prediction and global understanding to more focused listening. To activate background knowledge, the instructors first presented images taken from a YouTube video featuring a young woman describing her daily routine in a short, personal vlog-style format. Based on the images, students were asked to predict the content of the video.

After the first viewing, a brief whole-class discussion checked predictions and ensured general comprehension. The focus then shifted to listening for specific information. Students watched the video a second time and completed two tasks: identifying actions in the speaker's routine and recognizing frequency expressions. Students initially checked their answers in pairs before a final review with the whole class.

7th activity: Grammar and language noticing

Following the listening phase, the lesson moved into the presentation stage of the PPP framework, with an explicit focus on grammar and language noticing. The instructors displayed four sentences extracted from the video on the board, with the target verbs highlighted. All sentences exemplified the use of the simple present to express routine actions, as in *"Usually I have an avocado toast and coffee with milk."*

Through guided whole-class discussion, students were prompted to reflect on key questions such as: *Which verb tense is used? How is it formed? Which frequency and time expressions can be identified?* Based on students' responses, the instructors provided explicit explanations regarding the form and use of the simple present to describe routines and habits, reviewed verb morphology, and discussed common frequency and time expressions. This stage aligns with CEFR descriptors at the A2 level, which emphasize the ability to understand and use frequently used expressions related to areas of immediate relevance, including daily routines.

The lesson then progressed to the practice stage, as students returned to their activity sheets to complete a controlled exercise requiring them to complete sentences from the video using the simple present. This activity aimed to consolidate form–meaning connections and support accuracy in language use.

8th activity: Writing and oral interaction

The subsequent writing activity corresponded to the production stage of the PPP framework, allowing students to use the target language more freely and meaningfully. Students were instructed to write a short text describing their daily routine, including at least five actions, and were encouraged to incorporate time and frequency expressions. This task reflects CEFR A2–B1 descriptors related to producing short, simple texts on familiar topics and describing aspects of everyday life using a series of connected sentences.

To further promote oral production and interaction, students were then divided into two groups for a communicative consolidation activity. Each student mimed one action from their routine while peers attempted to guess it, encouraging spontaneous language use and reinforcing vocabulary and structures in a low-anxiety context.

In the final stage of the lesson, students exchanged their written texts in pairs and engaged in peer feedback, offering corrections and suggestions. This activity fostered reflective language use and learner autonomy.

Homework

As an extension of the production phase, students were assigned a homework task in which they were asked to assume the role of vloggers or YouTubers and produce a short video or audio recording describing their daily routine. The task was designed to be meaningful not only because it focused on a familiar topic, but also because it drew on a communicative register with which students strongly identify. It further supported the development of communicative competence by encouraging the production of connected spoken discourse, in line with CEFR A2–B1 level descriptors. The recordings were uploaded to the course's virtual learning environment prior to the following class.

The Teacher Layer

A defining feature of *Plans in Action* is the systematic inclusion of a post-task methodological reflection phase, which takes place immediately after the completion of the linguistic activities. At this point, instructors make the pedagogical architecture of the lesson explicit by "pulling back the curtain" on the teaching process and sharing the detailed lesson plan that underpinned the students' prior experience. This shift repositions students from language learners to analytical observers of teaching practice, inviting them to examine the structure, sequencing, and rationale of the didactic decisions that shaped the lesson.

During this "behind-the-scenes" analysis, students were guided to reflect on the function of each lesson stage and its contribution to the overall learning objectives. For instance, they discussed why a short *SpongeBob SquarePants* video was selected as a lead-in and how the quiz functioned as scaffolding for subsequent written production. Instructors also foregrounded the anticipatory dimension of lesson planning by sharing concerns identified during the design phase — such as time management and the potential difficulty of the listening input — and by explaining the strategies planned to mitigate these challenges. This pedagogical transparency enabled students to connect abstract methodological principles to concrete classroom practices, illustrating how learner-centered lessons are shaped by intentional design choices (Brown & Lee, 2015; Richards & Bohlke, 2011).

The reflective phase was structured as a guided analytical task in which selected components of the lesson plan, displayed on screen, were deliberately omitted and collaboratively reconstructed with students. In the analysis of the first activity, for example, the stage[43] label was removed. After revisiting the activity description and recalling the classroom procedures, students were asked to name the stage. One student identified it as a warm-up, which allowed the instructors to introduce the related concept of a lead-in and to situate both terms within commonly used lesson-planning frameworks. This process supported the gradual appropriation of pedagogical metalanguage.

In the analysis of the second activity, the omitted element was the stage aim. Once again, the activity description was reviewed collectively, and its pedagogical connection to the subsequent activity was highlighted. Based on this guided reflection, students collaboratively formulated the aims, thereby linking classroom actions to pedagogical intentions. This process supported the development of teacher cognition by making explicit the rationale underlying instructional choices. This scaffolding strategy was applied throughout the analysis of the entire lesson plan.

Importantly, this scaffolding fulfilled both a conceptual and a linguistic function. With proficiency levels varying from A2 to B2, students benefited significantly from the visual display of pedagogical terminology. As the lesson plan was incrementally revealed, this lexical support allowed learners to track the instructors' reasoning and express their observations in English.

43 The stages for the analyzed class were: warm-up/lead-in, discussion, vocabulary, reading, speaking, listening, language and grammar noticing, writing and homework.

By reducing the burden of producing full sentence sequences, the gapped structure of the reflective phase ensured that all students could participate effectively.

The second class began with the viewing of students' homework videos. Although not all students submitted their recordings, those that were received demonstrated a high level of engagement and creativity. Prior to the activity, students' consent had been obtained to share the videos with classmates. Several recordings displayed a polished, social-media-style format, and two students, in particular, filmed and edited clips of their daily routines outside their homes, including moments such as commuting by bus, arriving at work, exercising at the gym, and walking the dog.

The thematic focus of the second class was deliberately connected to the first, maintaining an emphasis on daily life and routines. Authentic online materials depicting everyday life in the remote region of Yakutia were selected to prompt discussion of similarities and differences in relation to students' own routines. The overall structure of the lesson closely mirrored that of the previous class. This intentional repetition served a pedagogical purpose: during the subsequent *behind-the-scenes* phase, students were able to revisit familiar concepts, stages, and terminology, thereby reinforcing their emerging understanding of lesson organization.

In the behind-the-scenes session of the second class, a greater number of elements were omitted from the lesson plan and left for students to complete collaboratively. This increased complexity extended the scaffolding process initiated in the first session, progressively shifting responsibility for pedagogical analysis to the learners.

At this stage, instructors explicitly drew students' attention to the structural and methodological similarities between the two lessons, emphasizing that both were organized around a theme-based approach.

Finally, students were guided through broader lesson-design decision-making processes, including theme selection, the identification of engaging and level-appropriate authentic materials, and, most importantly, the derivation of language focus from the analysis of those materials. By emphasizing that linguistic objectives emerged from the input rather than being predetermined, the discussion reinforced principles of meaning-focused, input-driven planning and supported the development of reflective, theoretically informed teacher cognition.

Conclusion

This paper examined *Plans in Action*, an optional course developed within a public English teacher education program in Brazil, as a pedagogical response to persistent challenges in both language proficiency and methodological preparation among pre-service teachers. By integrating experiential language learning with systematic methodological reflection, the course sought to address the observed gap between theoretical exposure to communicative, student-centered approaches and their actual enactment in novice teachers' classroom practices.

Based on the instructors' observations of classroom interactions, the course fostered sustained student engagement across both its language-focused and methodological components. Over time, students demonstrated increased awareness of lesson structure, as well as growing confidence in using pedagogical metalanguage in English to discuss teaching practices. From the instructors' perspective, these developments were closely connected to the integrated design of the course, which encouraged students to experience pedagogical concepts as learners before reflecting on them as future teachers.

Students' responses to the course, expressed in informal academic conversations and end-of-class feedback, further suggest that the activities and discussions were perceived as meaningful and relevant. In one illustrative case, a student chose to enroll in both editions of the course, explicitly referring to the perceived learning gains and practical relevance of the experience. Several students also reported that the course offered concrete ideas, materials, and models that could be adapted to their own teaching contexts, particularly among those already working as language tutors. Taken together, these observations point to the potential of the course to support the appropriation of communicative, learner-centered pedagogical principles and to prompt reflection on alternatives to the grammar-focused instructional models that many students bring from their prior educational trajectories.

As discussed in the theoretical framework above, *Plans in Action* has, in practice, served as a space for academic internationalization, even without a formal institutional mandate. The university's own long-term internationalization plan includes the gradual expansion of English-taught courses, but its implementation remains uneven, largely due to the generally low levels of English proficiency among students, a gap that courses like *Plans in Action* help to fill locally.

Students' trajectories and motivations further illustrate this. Participation in the Letras program is frequently articulated in terms of aspirations for academic mobility, further studies abroad, and engagement with international professional and scholarly communities. Across the two semesters analyzed, the course also attracted students from outside the English teacher education program, including a student from the mathematics degree and an international exchange student, evidence that its reach extended beyond its original target audience.

Analyzing the experience across the two semesters, the instructors observed pedagogical implications that can be related to the distinct instructional formats adopted. Longer class sessions proved more conducive to deeper methodological reflection, as they allowed the experiential and analytical phases of the lesson to be completed within a single meeting. When these phases were distributed across shorter sessions, additional time was required for recap and recontextualization, which made the lessons less time-efficient and, in some cases, reduced the meaningfulness of the analytical stage due to the time lapse between experience and reflection. At the same time, shorter and more frequent classes offered increased and more regular contact with the language, a factor known to support language development. These observations highlight the pedagogical trade-offs involved in temporal course organization in contexts that seek to integrate language learning and pedagogical reflection.

Taken together, these findings position *Plans in Action* as a Content-Based and ICLHE-informed pedagogical intervention, illustrating how a locally responsive course can meaningfully contribute to internationalization goals that formal institutional policy alone has not yet achieved. By foregrounding pedagogy, reflection, and equity, the course contributes to ongoing debates calling for more nuanced and context-sensitive understandings of ICLHE, moving beyond institutional policy and internationalization rhetoric to consider what is pedagogically viable and socially relevant in specific higher education contexts.

Limitations and Future Research

This study is exploratory in nature and is subject to several limitations. The analysis is based on instructors' observations and informal student feedback, without systematic longitudinal data on language development or teaching practices after course completion. In addition, the small number of course iterations and participants limit the generalizability of the reflections. Future research could address these limitations by incorporating student interviews, classroom observations of participants' subsequent teaching practices, and pre- and post-course measures of both language proficiency and pedagogical knowledge.

Further research is also needed to explore how bottom-up, locally designed initiatives like *Plans in Action* interact with broader institutional internationalization agendas. Comparative studies across public universities could shed light on how similar courses function as spaces of IaH in contexts where formal ICLHE policies are limited or unevenly implemented.

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21. Research Announcement: Is There More to Scientific English Than Reading? Speaking, Listening, and Writing in “English for Science” Courses

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Abstract: This study assesses an English for Science and Technology (EST) course for undergraduate students at a Brazilian federal university, within the English for Academic Purposes framework. While EST traditionally emphasizes reading specialized literature, this research investigates whether the other three skills—writing, speaking, and listening—are undervalued and how their integration might enhance reading proficiency and academic performance. Using questionnaires and classroom observations over multiple semesters, the study conducts target-situation and present-situation needs analyses to identify gaps between current instruction and students' real-world demands (e.g., publishing papers, attending conferences). Expected outcomes may confirm a reading-dominated, instrumental approach or reveal a shift toward a more balanced, learning-centered methodology. Findings aim to inform curriculum revisions and foster more effective EST course design in Brazil.

Keywords: English for Science and Technology (EST), Needs Analysis, English for Academic Purposes (EAP), Language Skills Integration, Curriculum Development.

Introduction

Before World War II - and even before that, after the Industrial Revolution - learning additional languages was a custom of the elite, done for the prestige of the language itself (Hutchinson and Waters, 1987). Before that, French was the language of interest in the European world-system, since France was the cultural hub of Europe and its former colonies. From that point forward, English became the international language for science, technology, and business, gaining the status of *lingua franca*. As it usually goes, education changed to meet societal needs (Aranha, 2020) by producing specialized personnel in specific areas of knowledge in large numbers. That democratized education while giving second-language learning a specific goal.

When teaching English as a Foreign Language (EFL) in any language course, it is possible to notice the increasing number of scientists in training learning English for many reasons – such as needing to read textbooks, write academic research papers for publication, and perhaps to speak and listen to English *in loco* as exchange students or conference participants. This is the premise of English for Specific Purposes (ESP): giving learners what they need, without wasting time on what they already know. Its premises align with ISO 9000 requirements, as it is tailor-made following a needs analysis and provides both formative and summative evaluation. One branch of ESP focuses specifically on scientific training in language, using English as the international and scientific *lingua franca* as a weapon to change and conquer the world (Rajagopalan, 2004). This branch, called English for Science and Technology (EST), was developed in the late 1970s.

Since EST is delivered as highly focused courses, it is important to gauge how much time would be spent on academic reading *versus* writing, and on listening and speaking. Hutchinson and Waters (1987) claim that emphasis on reading (and sometimes listening) is given in courses focused on the learning of instrumental skills and strategies as a methodology; others use active

methodologies to teach the language using case studies or inverted classroom situations. The Brazilian ESP Project, a PUC-SP endeavor spanning 50 years of contributions, and the journal The ESPecialist state that their aim is to teach reading skills for understanding specialized English-language literature. This text presents a research project in which I intend to analyze previous EST course developments in writing, speaking, and listening skills to derive the writing/listening/speaking ratio in a Brazilian context. In the following sections, readers will gain insight into the objectives of the study, its theoretical foundations, and the expected results of this study, which is currently in its embryonic phase.

Objectives and Research Questions

This study hereby establishes the starting point for a broader research project that assesses an EST course for Science and Technology undergraduate students in the geographical region of Francisco Beltrão, Paraná state, Southern Brazil. Considering Hutchinson and Waters' (1987) organization of the various types within ESP, this study is directed toward English for Science and Technology, within English for Academic Purposes. This course's purpose is to prepare scientists for international conferences and exchange programs, and particularly to publish scientific papers in overseas journals.

The study is guided by three research questions:

Can the other three skills help learners become better readers?

What are the methodological effects of having only the reading skill as focus?

How will learners' needs change during the course?

These research questions will provide insight into the fact that students arrive at university with varying levels of English proficiency, as well as into what their focus on English usage will ultimately be. The Materials and Methods section will provide further explanations of how this endeavor will be undertaken.

Justification

This study has arisen from the author's experience teaching English for Business Secretaries and English for Physicists in tertiary education, as well as serving as a private tutor for other scientists and professionals, such as aviators, sanitation engineers, and materials engineers. Pre-service students' needs are strongly focused on reading, but professional performance requires the development of the other three language skills. The author's experience as a Chemistry undergraduate student and researcher has also shown that reading is valued more in EST courses than the other three skills, particularly for undergraduate students of Science.

In addition to personal reasons and background on the topic, this is a point of interest because there are already established ESP courses at UTFPR Francisco Beltrão, and they

have undergone needs analysis. In-session needs analysis in Agronomy courses shows, for example, that English proficiency upon entering the course is very low. However, Hutchinson and Waters (1987) believe that needs analysis is an ongoing process that must be repeated and reassessed often.

Theoretical Foundations

English for Specific Purposes (ESP) is a subfield of English Teaching and Learning (ELT) that emerged formally in the 1960s, drawing on its successful endeavors during World War II. Hutchinson and Waters (1987) see it more as an *approach* than a *product*, since the high level of tailoring in ESP courses generates pinpoint-accurate materials for a given situation, university, or country. Dudley-Evans and St. John (1998) argue that one of the main characteristics of ESP is its focus on language, skills, discourse, and genres to meet specific student needs. According to Rahman (2015), needs analysis is a key factor in ESP, and several models for needs analysis were developed in the 1980s and 1990s. Some factors must be taken into consideration when differentiating ESP from General English (GE) classes: for example, in GE, all four language skills are used in equal measure, while in ESP, a needs analysis study is necessary to evaluate which skill is most important and thus should gain prominence (Rahman, 2015).

Needs analysis studies identify not only the students' needs from an English course but also the underlying language aspects, specific disciplines, and language level of the group, which leads to the definition of the necessary methodology. The two main branches of ESP are English for Academic Purposes (EAP) and English for Occupational Purposes (EOP). EAP is more focused on students' English-language use in college across all areas, and EOP is centered on post-university use, with a focus on areas such as Medicine, Law, and Business (Hutchinson & Waters, 1987). This study will focus specifically on EAP, particularly its subfield, English for Science and Technology (EST), given the courses currently offered at UTFPR Francisco Beltrão. Universidade Tecnológica Federal do Paraná is a centenary institution in which technology has been a key element in all its shapes and forms: from Lyceum to Tech School, and as a Federal University for the last 20 years. The Francisco Beltrão campus is one of the 13 campuses spread throughout the state of Paraná, located in the southernmost region of Brazil, and therefore has its own particular climate and academic priorities.

In an EST course, the main objective is usually the same: to enhance learner language levels up to academic learning, enabling the learner to go through academic studies and research in science and technology, raising researcher potential, and ultimately yielding publications on the matter for both scientists in training and EST researchers, in a win-win situation. This way, Languages and Exact Sciences connect and collaborate profitably. It is not a "one size fits all" situation, as is the case with General English courses, which usually organize their textbooks and materials with standardized proficiency levels. When standardized materials are used, Chen (2006) advises ESP teachers to adapt them whenever possible to better meet their students' needs. Needs analysis should also be explicit to students, as Hutchinson and Waters (1987)

posit that when all actors involved in ESP know why learners need English, they will broaden their awareness of what is seen as acceptable or reasonable content in the course.

Many adjustments have to be made to fit an English course to scientific needs. One of those is time constraints. How many hours should be allocated to learning English for these particular learners? How many hours can they dedicate to this? Is the course going to be held in a pre-sessional way, before the scientific course begins, or during the semester? Should the course be intensive or extensive? Perhaps semi-extensive, lasting for an intermediate time? How much authentic area content should be added to the ESP course? Besides, what are the standards of Brazilian academia for the use of the English language? Many researchers have asked the same questions, and some of their answers are commented on in this section.

For example, Dudley-Evans (1977) presented a case study that examined the language needs of undergraduate scientists and developed a course to address the considerable language problems identified, despite learners having studied EFL at school for years and/or at private language schools for months. Based on that, he decided to create a course program consisting of only two weeks. In a thoroughly pre-assessed group, perhaps two weeks could be enough to address learners' language problems and provide the study skills necessary for academic and scientific studies, but such a diagnosis must be conducted very carefully.

In the case studied by Jordan and Matthews (1978), the decision was made to offer a 7-week intensive course with a broader approach to English for Academic Purposes for overseas graduate students at Manchester University, to be held before their graduate program started. This type of course is also known as a pre-sessional course. Learners spoke English with limited academic skills and were divided into groups of 12 according to their previous English proficiency and subject field, in a general way. The remaining question for the present research project is whether learners in our educational and professional scenario would be able to devote 7 full weeks to this course.

Swales (1978) reported on the development of materials specifically designed for writing in EST courses. The time constraint was significantly different from those in the previously analyzed cases. Given that secondary schools in Libya provide little training in science and experimentation, a reality also in Brazil, undergraduate Arabic-speaking learners had a 2-year course of 5 hours per week in Year One and 3 hours per week in Year Two in an Engineering undergraduate program. To their advantage, their background was generally six years of EFL at school, studying 6 hours per week. However, their L1 (Arabic) is very different from English in its linguistic system, and the gap between the two may have been compensated for by the length of their study of the language. In Brazil, learners usually have 2-4 hours per week of EFL for 7 years, but Brazilian Portuguese and English are more alike as linguistic systems. Despite the differences between Arab and Brazilian learners, the situation before the course seems quite similar: learners have only basic language skills, with severe L1 interference, and cultural/linguistic problems in writing, as well as speech inhibitions.

Researchers developing EST courses usually infer the same set of learner needs: according to Dudley-Evans (1977), scientists need to follow lectures, take notes, read prescribed books, write laboratory reports, understand examination questions, and write appropriate answers. The initial need, however, is to grasp the basic notions of science in English, understand and produce the grammar and vocabulary of notions such as structure, measurement, cause and effect, and correlation, among others, very unlike the dialogue in a General English course. This course must be designed to improve learners' study skills. Many learners copy everything from the board, but if they fail to understand what the lecturer said, the notes become useless. Following a lecture requires two basic skills: distinguishing the main points from examples given by the lecturer that support them, and noticing topic changes in the lecture (Dudley-Evans, 1977).

Jordan and Matthews (1978) stated that the same skill structure is sought by EST learners, adding the problems of participating in class and understanding informal speech during lectures. Learners need to refine their additional language enough to study at the university level. This usually consists of attending lectures and seminars (and taking notes for further self-study), participating in class discussions, and writing essays and examinations. Informality in lectures is reportedly a major difficulty for listening comprehension. Learners were surveyed by Jordan and Matthews, revealing that, most of the time, when faced with listening situations, they had difficulty with comprehension, particularly with accents and fluent speech rate. Initially, writing was not considered a major problem, but six months later, the difficulty doubled due to the continuous writing tasks, reports, and thesis outlines learners had to complete. Research and teaching experiences were used to focus on learner needs, limiting the objectives to help learners feel a sense of progress and develop self-confidence (Jordan & Matthews, 1978).

Surely, an EST course can be developed and planned based on previous studies of needs, but it can benefit from a targeted needs analysis for a given region or environment. Dudley-Evans and St. John, as cited in Rahman (2015) claims that needs analysis will provide insight into the learners, how language skills can be maximized, and the target situations and environments students expect to reach. In addition, needs analysis can be embedded in the formative process, potentially leading to a database of learners' views on the English language and its practicality, especially given the current prevalence of predictive text tools. This is precisely the final product this study aims to produce, providing insight for better-targeted language courses that will successfully foster English-speaking scientists.

Methods

This study will be conducted at a public federal university in the west of Paraná state, in the city of Francisco Beltrão. Science and Engineering students will be tested through questionnaires about their needs concerning the four language skills in English: reading, writing, speaking, and listening in both the first and last year of college, to compare a possible shift in their needs and priorities related to English skills. According to Hutchinson and Waters (1987), this is an

analysis of *lacks* because it is informed by students themselves, who report what they know, so the analyst can identify what they are lacking at each point in the questionnaires. These questionnaires will be repeated for 4 years to achieve a large sample of participants, which will also compensate for the fact that first-year students might fail to respond to the questionnaire in the following 3-4 years of college. Increasing the initial pool of participants each year will eventually account for student dropout and absent participants. This comprises a Target-Situation Analysis (Rahman, 2015), which determines the extent to which English should be used at the end of a language course. In the questionnaire, micro-skills and attitudes toward English will be presented as checklists with goal-oriented sentences in Portuguese that identify objective, perceived, and product-oriented needs. Additionally, Present-Situation Analysis questions will provide information about students' strengths and weaknesses. These questions will provide information about *who, why, how, what, where, when,* and *with whom* the language will be used (Hutchinson & Waters, 1987). Expected results will provide insight into EST as practice, opening pathways for further studies with EST lecturers to relate the results to broader references for their work, and support the reassessment of learners' needs in the target situation at UTFPR Francisco Beltrão.

In addition, English for Academic Purposes students will be interviewed concerning their strategic development of skills other than reading during a course semester. These observations will be repeated for up to ten semesters, depending on academic availability and varying specialization niches in different undergraduate programs. The observations will provide data on the environment in which courses are run, as well as on the local setup (methods, facilities, equipment, etc.). Both observations (questionnaires and interviews) will be conducted only after a consent form is signed in accordance with the institution's Ethics Committee.

Data from questionnaires will be tabulated, and graphs will be generated to better visualize any change in priorities. Observations will be recorded in a research journal to provide qualitative data about the strategic learning of the three overlooked skills. If necessary, some participants (students, subject specialist professors, language professors, and in-service hiring personnel) will be called upon for semi-structured interviews to better understand the observations made and their views. The analysis model selected is the one developed by Dudley-Evans and St. John (1998), which is more comprehensive and can account for all the variables targeted by this study, namely: previous level of proficiency, later level of proficiency, and day-to-day English usage, among others.

Expected Results

It is not expected that all stakeholders will achieve the same results regarding learner needs or wants. In addition, it is expected that there will be some form of conflicting perceptions between them (Hutchinson & Waters, 1987). Expected results might prove the hypothesis that ESP is implemented in a *language*-centered or *skill*-centered approach, in which Instrumental English is the norm: classes in the mother tongue, solely focused on the reading of specialized

texts, with no use of the other three language skills. However, results may indicate the contrary: that ESP is taught beyond Instrumental English, in a *learning*-centered approach (Hutchinson & Waters, 1987).

Another expected result, more closely related to practice, is to provide a basis to revise the current EST courses, since updating is a continuous process in the field of ELT. The results will influence the pedagogical planning at UTFPR at the Francisco Beltrão campus and later produce data to be considered by other campuses and perhaps other institutions. A better-tailored course for the reality and challenges of this academic environment is also expected to become an opportunity for growth.

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Part IV

Situated Educational Practices Across Disciplines

22. The Use of English in UFCSPA Courses

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Abstract: UFCSPA, the only Federal University in Brazil specialized in health sciences, receives international students from countries such as Colombia, Honduras, Angola, Mozambique, the United States of America, Portugal, among others. Also, many Brazilian students from UFCSPA enroll in international programs offered by universities from other countries, including Canada, Portugal, the United States of America and others. Besides these mobility programs, UFCSPA has been increasing its efforts to internationalize curricula through different actions, such as offering courses in other languages, including English and Spanish. In this article, professors share their experiences in using English as a Medium of Instruction (EMI) to teach different courses at UFCSPA. Our overall goal is to foster a discussion on strategies to advance academic knowledge in some health sciences areas through a language other than the students' mother tongue. We discuss how adopting English as a scientific tool can enhance academic discourse, serve as a springboard for higher education learning, encourage students to participate in international scientific events, and contribute to multiculturalism.

Keywords: English as a Medium of Instruction, Higher Education, Teaching in English, Additional Languages, Health Sciences Education, Content Professors.

Introduction

The use of English as a Medium of Instruction (EMI) in Higher Education Institutions (HEIs) in Brazil is relatively low compared to some other countries, nevertheless it has increased in the last 15 years (Martinez, 2016). The "Science without Borders" government program (2011–2015) aimed at sending Brazilian STEM students abroad, significantly accelerated the institutionalization of EMI (Brasil, 2011). By exposing students and home institutions to internationalization, this program fostered a greater interest in EMI among Brazilian academics. Another government strategy to increase internationalization of HEIs is the CAPES PrInt (2018–2024), which was targeted at graduate programs and is based on an internationalization at home approach, with strong emphasis on international strategic partnerships, inward mobility and long-term internationalization, reinforcing and prioritizing staff development, impactful research and reciprocal mobility (CAPES, 2017).

EMI is one of the strategies for institutional internationalization adopted by HEIs in countries where the official language is not English (Dearden, 2014). In fact, EMI opens many opportunities; for example, it can attract international students, enhancing diversity and global appeal in a HEI; it prepares students for a globalized job market, equipping them with skills for international mobility; it may raise university profile and ranking, improving institutional prestige on a global scale. Despite these positive aspects, EMI poses some challenges, including: a) linguistic challenges, such as heterogeneity in professors' and students' English proficiency levels; b) cultural challenges such as apprehension that EMI can be a threat to local languages and cultural identity; c) HEI structural challenges such as lack of staff and financial resources to support professors willing to use EMI in their courses, or overloaded professors who have to double their hours teaching a discipline in both the mother tongue and English; and even d)

identity-related challenges, as professors may struggle with adapting their teaching identity to an English-only environment, especially if it limits their personal teaching style; students from lower socioeconomic backgrounds may be reluctant to engage with EMI due to perceived conflicts with their self-constructed identity and fears of underperforming (Martinez, 2016).

The Brazilian Higher Education system comprises 2,407 HEIs, 197 (8.2%) of which are universities (HEIs that carry out teaching, research and extension/outreach activities). Although private universities concentrate more than 75% of the enrolled students, public and private not-for-profit universities are the most internationalized and better ranked institutions, also offering postgraduate programs in most areas of knowledge. Notably, Brazilian public universities do not charge tuition fees for national or international students; still, the number of international students is very low in Brazil, accounting for approximately 1% of the total number of enrolled students (Gimenez et al., 2018).

Brazil is a continental-size country with great cultural, social and economic diversity. Therefore, it offers unique opportunities for students to learn and exchange knowledge in a university environment. Notably, Brazil is the only South American country where Portuguese is the native and official language, and Portuguese is the most spoken language in the Southern Hemisphere and the fifth most spoken language in the world, thus playing an important role internationally as different countries share it (Mullender, 2022). However, Portuguese is not as deterritorialized as English in the internationalization of higher education. In this context, the use of EMI may help the internationalization process of Brazilian HEIs, by attracting students from other countries, by better preparing Brazilian students for an increasingly globalized and competitive job market, and by improving a HEI's position in international rankings. On the other hand, most Brazilians do not learn English in school, and only a minority elite has the means to pay for private English courses. Therefore, the level of English among university students is usually low, limiting their participation in disciplines taught in English.

EMI in Health Sciences Courses: Sharing Experiences

The Federal University of Health Sciences of Porto Alegre (UFCSPA) is the only Federal University specialized in health sciences in Brazil. Located in Porto Alegre, the capital of Rio Grande do Sul – the southernmost state in Brazil –, UFCSPA started as a private medical school in the 1960s; new undergraduate courses started to be offered in the 2000s, and in 2008 it became a Federal University. Despite its small size (2,943 undergraduate students, 1,461 graduate students, 419 professors, and 213 permanent staff), UFCSPA has a variety of internationalization actions and activities, including academic mobility of students, professors and staff; social activities; MOUs with institutions from other countries; international scientific and academic events; and use of EMI by some professors.[44] This chapter presents the experience of some professors in EMI at UFCSPA.

44 For more information, access www.ufcspa.edu.br.

The Global Health Course: Transcending Linguistic Boundaries

Understanding Global Health is important to overcome public health problems worldwide and eliminate health disparities, improving life quality. Global Health education should be part of the curricula of university courses to prepare professionals from different areas for addressing current health challenges and reducing the global burden of diseases (Peluso et al., 2012; Ablah et al., 2014). Brazil is a continental-size country impacted by tropical infectious diseases, chronic diseases, air pollution, disasters, and other factors; hence, capacity-building of professionals in Global Health is necessary in all levels.

Considering that UFCSPA is focused on training professionals in health areas and the importance of global health education, professors from different areas at UFCSPA got together to organize a Global Health discipline, which started to be part of the curricula in 2018 as an elective course in English.

Two professors are responsible for the discipline, and two others participate every year as collaborators. Also, invited Brazilian and foreign lecturers give seminars about current health challenges (specific disaster events; pandemic risks; vaccine development and access to medications; etc.). Besides attending lectures, students are expected to elaborate questions to each lecturer and engage in discussions. They must also subscribe to the Global Health NOW Newsletter (GHN, 2026), choose an article related to the topic discussed each week in class, and write an essay about the article, connecting it with what was discussed in class. Assessment of students is based on participation in discussions and essay writing.

The discipline started as a 15-hour course to students of graduation and post-graduation programs. Because of the complexity of the subject, 15 hours were added to the course in 2019 to better explore the proposed topics, which include the Global Burden of Diseases; social determinants of health; environment, climate changes and health; disasters; emerging and reemerging infectious diseases; medicines and drug abuse; mental health; non-communicable diseases; sustainable innovation and health; Global Health Policy and healthcare systems.

Participation of undergraduate students was below expected, so since 2020 the discipline has been offered once a year only to graduate students from post-graduation courses from UFCSPA and collaborating universities. The COVID-19 pandemic was the perfect backdrop for discussing the importance of a systemic and comprehensive approach to addressing global health issues. In 2020 and 2021, many activities at UFCSPA, including classes, took place online. This was probably a factor that contributed to having more students participating in the discipline; accordingly, the highest number of students who enrolled and finished the Global Health course was observed in 2020, 2021, and 2022.

Classes were back to in-person mode in 2022. In that year, an international student who had just arrived in Brazil and who did not speak Portuguese or English, only Spanish, enrolled in the Global Health course. Understanding and reflecting on the importance of multilingualism in Global Health, the professors decided to also accept the use of Spanish and Portuguese in class;

still, students are encouraged to speak preferentially in English. This significantly increased the participation of students in the discussion sessions in class, improving their understanding about specific topics and contributing to the learning process. Moreover, as students felt encouraged to discuss the topics, they also ended up practicing their English, even when mixing with Portuguese or with Spanish (“Portinglês”, Portenglish”, Portunhol”, “Spanglish”).

In 2024, the professors from the Global Health discipline were contacted by professors from the University of Health and Allied Sciences, in Ghana, whose students were interested in enrolling in the course. Hence, in 2024 and 2025, the discipline was taught in hybrid mode: in-person for students at UFCSPA and synchronously online for students in Ghana. In total, from its first version in 2018 until 2025, the discipline had a total of 77 students who completed it.

In 2021, the discipline was offered as an international course online, with participants from Brazil, Colombia, Nicaragua, Mexico, and Portugal, as part of the “ANDIFES International Virtual Mobility Program – Destination: Brazil”, and also as an extension course within the Brazilian Congress of Epidemiology.

By allowing other languages to be spoken in class, professors were also able to invite lecturers who are not fluent in English. For example, the topics “Environment, Climate Change and Health” and “Disasters” were delivered by expert scientists who feel more comfortable speaking in Portuguese, but their slides were in English so that students from Ghana could understand what was being taught. At the end of the classes, discussions ended up happening in a mixture of languages, enabling everyone to participate.

The Global Health course of UFCSPA has played an important role in preparing professionals to face health challenges. The use of other languages besides English in class has contributed not only to encourage students to participate in discussions and exchange of knowledge about Global Health topics, but also to strengthen their interaction and bonds outside the classroom. In this sense, multilingualism is important to decolonize Global Health and promote a more equitable and democratic education environment.

Cognitive and Language Integrated Learning of Neurosciences

Teaching core concepts in Neuroscience is often a challenging endeavor. When this task is undertaken in a foreign language, one might assume that the level of complexity becomes too high to support effective learning. However, this challenge can actually create opportunities to overcome common language-related barriers, such as shyness and insecurity, while simultaneously promoting the integration of scientific knowledge about the brain.

Within this context, the *Neurotransmitters* course offered in English at UFCSPA is designed to provide a safe and supportive learning environment, combining consistent contextual exposure to both the English language and fundamental principles of Neuroscience. Importantly, the course incorporates brain-friendly learning strategies, such as retrieval practice, to enhance knowledge retention. We also emphasize that intelligibility and successful interaction are more

important than grammatical perfection or accent imitation, and neither professors nor students are expected to communicate flawlessly in English during class. In other words, our focus is not on achieving “native-like” English, but on building effective “English as a Lingua Franca”[45], fostering an atmosphere where active participation and learning take precedence over linguistic perfection, so our students can connect with the world using a functional, flexible English. In addition, we start the course with basic concepts of neurotransmission and build complexity gradually, with the dual goal of developing subject knowledge and communication skills simultaneously.

To create a safe and positive learning environment while fostering students’ confidence, professors begin the course by lecturing in English while intentionally acknowledging their own grammatical imperfections and diverse accents. This approach reinforces the understanding of ELF, in which effective communication and mutual intelligibility take precedence over adherence to native-speaker norms. The main objective is to reduce language-related anxiety by demonstrating that mistakes are a natural part of the learning process and valuable opportunities for communication, interaction, and growth.

Because English serves as the lingua franca of scientific instruction and dissemination, particularly for evidence-based neuroscience research, learning neuroscience in English is highly relevant for the education of future researchers. Later in the course, the integration of visual (diagrams), auditory and verbal (pronunciation), and tactile components (preparing presentations) engages multiple brain systems, consistent with principles of second-language learning. This approach allows students to develop their language skills while consolidating knowledge of the neuroscience topics under study.

The challenges for university courses in English involve having multiple professors who are proficient in both the language and the subject being taught, which is often very specific. To overcome some of these barriers, we partnered with other universities in Brazil (UFRJ and UFPR) to offer the same course simultaneously with the aid of videoconferencing. In this model, each university held in-person classes at its respective campus while connected through a video call. We are also preparing doctoral students or postdoctoral researchers from the Graduate Program in Health Sciences to become future replicators of these methodologies. To date, we have included two young graduate students as tutors or teaching assistants in these courses. In the most recent edition, one of these individuals, after completing their doctorate, participated in the course in a teaching role while holding a postdoctoral position. Having an early-career researcher acting as an instructor in the course helped strengthen the connection between students and teaching staff, as prior experience as a tutor facilitated a smooth and effective transition into this role.

Naturally, there were challenges that arose when applying this methodology. One is that, during the course, students would sometimes struggle with more complex subjects in Neuroscience since their language skills were still developing. Another barrier relates to assessments, which

45 “English as a Lingua Franca” is the use of English as the communicative medium of choice among speakers of different first languages (Björkman, 2011).

become difficult due to the need to balance the evaluation of content knowledge vs. language proficiency. In this sense, we help students to balance knowledge acquisition and language skills by having them read the relevant literature in English and making presentations to their colleagues on pre-established days. To date, research on content and language integrated learning in scientific programs has seldom been carried out. In the future, following international examples, we need to investigate the effectiveness of the methodology by conducting a pre-post-follow-up test (Buse et al., 2018).

Drug Delivery Course

Drug delivery can be defined as the science and technology related to the administration of drugs and other bioactive compounds to achieve a therapeutic effect in humans or animals (Ezike et al., 2023). It is a highly interdisciplinary field, integrating concepts from biology, chemistry, pharmacology, pharmacy, and medicine. Although drug delivery is a consolidated area of research and innovation in academia and the pharmaceutical industry, educational resources specifically developed for teaching its fundamental concepts are comparatively scarce.

In general, the available resources are predominantly research-oriented and consist of collections of scientific articles focused on specific experimental approaches, which may hinder the construction of a coherent conceptual framework by students entering the field. As a result, graduate students and early-career researchers may experience difficulties in organizing theoretical knowledge and identifying how different aspects of drug delivery interrelate.

The Drug Delivery course offered at UFCSPA was designed to address this gap by providing a structured introductory overview of drug delivery systems, including different routes of administration and carrier platforms for both small molecules and biotechnological products. The course aimed to familiarize graduate students with key concepts in drug delivery while encouraging them to apply this knowledge to their own research contexts. Case studies from academia and the pharmaceutical industry were used to illustrate development processes and decision-making in drug delivery design.

The adoption of EMI was considered a strategic component of the course, as it allowed students to engage with the terminology commonly used in the field. Since most scientific articles, reviews, and technical reports in drug delivery are published in English, EMI also facilitated students' access to the primary literature. It also helped them to improve their comprehension of academic oral communication in English and develop contextualized language skills directly related to their research activities.

The course consisted of in-person classes conducted entirely in English, delivered by the course instructor and guest lecturers. Classes combined theoretical content with guided discussions, all carried out in English. Peer support was encouraged during discussions, particularly when specific terminology posed challenges, and the use of online dictionaries during class was explicitly allowed. Student participation was assessed through two oral presentations.

In the first activity, students selected a scientific article related to drug delivery, presented its main findings, and critically discussed the work with their peers. In the second presentation, students were required to incorporate drug delivery concepts into their own research projects. This involved analyzing the physicochemical properties of a molecule of interest, proposing an appropriate route of administration and carrier system, and outlining an experimental design to address specific research questions.

The first edition of the course was offered in 2019 as a 30-hour, face-to-face discipline, and 10 Brazilian graduate students attended the course. Students presented heterogeneous English proficiency levels, ranging from limited familiarity with the language to advanced fluency. Given the novelty of both the subject matter and the use of English, student engagement and interaction were notably high. In a subsequent edition, during the COVID-19 pandemic (2022), asynchronous activities were introduced to complement synchronous classes, and the course was expanded to 45 hours. These activities allowed students additional time to reflect on theoretical concepts, connect them to practical applications, and collaboratively develop a glossary of field-specific terminology. This edition enrolled three Brazilian graduate students from two different UFCSPA graduate programs, all of whom were proficient in English.

The third edition, offered in 2026, enrolled 10 graduate students from three UFCSPA graduate programs. The class comprised eight Brazilian students with varying levels of familiarity with English, one student from Afghanistan, and one student from Cameroon. In addition, one undergraduate student from the Medicinal Chemistry program attended the course and actively participated in all activities.

Overall, student feedback was consistently positive. Participants highlighted the applicability of the knowledge acquired to their research projects and expressed appreciation for learning a complex subject through English, reporting increased confidence in both content mastery and academic communication. Encouraging students to engage with uncertainty, emphasizing communication over linguistic perfection, and validating effort are essential strategies.

Experiences from the course indicate that, when properly supported, students are able to overcome initial barriers and develop both academic and linguistic confidence. These outcomes reinforce the potential of EMI not only as a tool for internationalization but also as a means of empowering students in their academic and professional trajectories.

Publishing Scientific Data: Writing in Practice

This course was designed for students to develop multiple capabilities. As health science students, a lot of scientific information to be studied is presented in English. Moreover, students are required to produce and publish knowledge by means of scientific publications. They have frequent access and contact with the English language by reading, but have few opportunities to write and speak in English.

First introduced in 2016, Publishing Scientific Data: Writing in Practice is a 30-hour course targeted at graduate students as the final product is a scientific paper (or a very robust draft). The course encourages the students to develop their rationale, and to reflect about the development and analyses of their research projects. They can take the course regardless of the stage of their research. When students are in the beginning or in the middle of their graduate studies, the course fosters their discussions with supervisors, alignment of data collection, and anticipated planning regarding expected results; in many occasions this leads to the reconfiguration or modification of data collection. When they are at the final phases of their graduate studies, the course fosters more deepened critical thinking; students further develop their discussion about the data or in many occasions feel very motivated to start an additional paper.

Regardless of the English proficiency levels of the students, they are encouraged to speak about their projects; they exchange information with peers about methods, possibilities of analyses, and technical support for their research. Beyond the scientific aspect of the course, they also have the opportunity to share difficulties, make friends with other students from different specialties, and have the opportunity to raise their cultural awareness.

A key strategy applied on the first day of class is to present the concept of ELF. Many students are unaware of the concept, and they start the course with the fear of making mistakes or not speaking correctly. Their personal introduction in the beginning of the course is also an important educational strategy. They present themselves in English, their professional background, and their experience with the English language. They get to know that each one has their own level of communication. The professor emphasizes the ELF concept and how important it is to everyone to make the effort to communicate and understand one another. Once presented to the concept, they feel relieved and at ease. They formally report in their final assessment of the course how important it was to have the ELF concept explained in the beginning of the course.

The course is held in hybrid form. In the beginning the classes are face-to-face to develop this sense of communication, as well as student interactions and bonding. As the course progresses, online sessions, with individual short sessions with each student, are held to help the students with their different levels of development of the paper. These individual sessions were included in the last two iterations of the course, with positive feedback from the students, as they can have a very close contact with the professor and feel more confident with their work.

As a final thought, it is very important for the professor to be aware and sensitive of the students' individual needs or eventual difficulties with the language. In some situations, an individual conversation can make the student more encouraged to participate, despite their perceived language barriers. Students' feedback on the course is fundamental for the adaptation and evolution of educational and cultural awareness strategies.

Personal Financial Planning

Previous conceptual work on EMI in higher education stresses that, in business studies, language-related support may need to encompass both discipline-specific terminology (including finance) and the professional fields through which business knowledge is taught (Schmidt-Unterberger, 2018). Empirical evidence from an English-medium finance setting further suggests that academic success in studying finance in English can be shaped by a combination of English proficiency, mathematical competence, and learners' self-beliefs, with implications for course design and student support (Thompson et al., 2022).

In this context, an English-taught elective course entitled "Personal Financial Planning: How to Deal With Money" was offered in 2019 to undergraduate students from all courses at UFCSPA. Prior to implementation, typical feasibility concerns were anticipated: whether students outside business areas would be interested in studying finance, whether they would perceive the topic as relevant, and even if English could represent an unnecessary barrier given the availability of that knowledge in Portuguese. The course rationale, however, matched students' immediate needs, including experiences of heavy debt, concerns about pension planning, interest in developing saving habits, and the desire to avoid financial fraud (e.g., Ponzi schemes), which provided a strong basis for engagement no matter what the disciplinary background was.

Pedagogically, the course was framed as a financial literacy intervention targeted at strengthening awareness of personal responsibility for financial stability and addressing common gaps in personal finance and budgeting knowledge. Lecture design emphasized applied competence-building: students were guided to organize spreadsheets, and plan and control cash flows toward concrete saving goals. They were later invited to revise and advise peers on their personal financial plans, using peer feedback to consolidate learning. In classroom dynamics, initial anxiety around the English language tended to quickly dissipate as attention shifted to activities and assignments. Students participated actively, and the use of English worked as a medium that really helped to attenuate common prejudices that finance was intrinsically "boring" or excessively difficult.

Content coverage combined introductory and applied fields of personal finance, including financial literacy, consumer behavior and the impact of interest, budgeting basics, debt, saving habits, investment risk and return, insurance, pension funds and retirement planning, and responsible credit use. Overall outcomes were professionally meaningful, with evidence of positive student reception and engagement, supporting the viability of offering business-and-finance content through English to students from non-business backgrounds when relevance and hands-on learning are highlighted. In the end, the experience fostered the intention to offer the course again and to continue refining the model as an EMI route for competence development in a health-sciences university context.

Concluding Remarks

In conclusion, teaching in a lingua franca, primarily English, in Brazilian universities is a growing trend driven by globalization, aiming for internationalization and research access, but it presents challenges for which we employ suitable resources for both content and language practical learning. Also, the students are encouraged through active learning methods (group work, projects, experiments, debates) to promote both communication and subject understanding.

In short, the use of English as Lingua Franca in HEIs can be considered an effective approach to develop multilingual and multicontext capabilities, combining subject learning with real-world language practice in higher education. In addition, it contributes to multiculturalism among academics, as they feel more confident and capable of attending international events and interacting with international scientists. However, the success of EMI depends on teaching expertise, student support, and designed materials and assessments. Using English as an additional language at UFCSPA enhances scientific English competence, conceptual mastery, and international readiness. It makes academics more confident both in handling the science and in communicating it, which is crucial in a research area so dependent on global collaboration.

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23. Talks in Clinical Lab: Integrating English-Medium Instruction and Clinical Laboratory Education in Biomedical Sciences

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Abstract: *Talks in Clinical Lab* is an elective course offered at the Federal University of Health Sciences of Porto Alegre (UFCSPA), in southern Brazil, designed to integrate English-Medium Instruction (EMI) with clinical laboratory education. Initially inspired by international certification pathways in clinical laboratory sciences, particularly the American Society for Clinical Pathology Board of Certification (ASCP BOC), the course was structured around laboratory topics and certification-style questions. Its first editions followed a blended learning model and relied mainly on expert-led lectures in English. However, limited student interaction revealed the need for pedagogical redesign. To enhance engagement, the course gradually incorporated student-centered strategies, including student-led discussions of certification-style questions, the *Movies and Series* activity, and content-related icebreakers. These strategies aimed to reduce hesitation, stimulate oral participation, and connect clinical laboratory science with students' academic, cultural, and professional interests. Over ten editions, the course reached undergraduate and graduate students from different health-related programs. This experience suggests that EMI in health sciences becomes more meaningful when English is used not only for content delivery, but as a space for scientific participation, professional identity development, and inclusive internationalization at home.

Keywords: English-Medium Instruction, Clinical Laboratory Sciences, Student Engagement, Health Sciences Education, Internationalization at Home.

Introduction

English as a Medium of Instruction (EMI) has emerged as a critical strategy in higher education to promote internationalization, enhance English proficiency, and boost students' competitiveness in global markets. Despite its evident benefits, such as improved language skills and international mobility, the implementation of EMI presents significant challenges, including linguistic barriers, cultural tensions, and risks to local languages and identities (Lai & Idris, 2025).

In health sciences education, English plays a key role because much of the scientific literature, technical terminology, clinical guidelines, laboratory protocols, and international research output is available in this language (Kamadjeu, 2019). So, basic proficiency in the language is very important for students and professionals who seek continuous updating, participation in scientific events, and access to global knowledge. This is particularly relevant in clinical laboratory sciences, a field characterized by specialized vocabulary, standardized procedures, quality requirements, and international certification systems, such as the American Society for Clinical Pathology Board of Certification (American Society for Clinical Pathology Board of Certification [ASCP BOC], n.d.). In this context, initiatives that integrate English with course content may help students to develop not only linguistic confidence, but also scientific literacy and professional readiness for increasingly internationalized health settings (Dafouz & Smit, 2020; Macaro et al., 2018).

Internationalization at home has become a relevant strategy for public universities, particularly in contexts where international mobility is not equally accessible to all students. Rather than depending exclusively on exchange programs, its modality integrates international, intercultural, and global dimensions into the curriculum and into domestic learning environments (Beelen & Jones, 2015; Robson et al., 2018). In the Brazilian context, a report has emphasized the need to democratize internationalization and reinforce internationalization at home as a way to provide international education opportunities for students who are not able to travel or engage in mobility (Krause et al., 2025). The same report highlights the growing connection between EMI and internationalization at home in Brazil, noting that courses offered in English by Brazilian universities increased from 671 in 2016 to more than 1,000 in the first semester of 2018. EMI initiatives can therefore contribute to internationalization when they are designed not as selective spaces for already fluent students, but as pedagogical environments in which learners progressively develop disciplinary knowledge, linguistic confidence, and professional communication skills (Dafouz & Smit, 2020; Macaro et al., 2018).

The Federal University of Health Sciences of Porto Alegre (UFCSPA) provides a distinctive setting for such initiatives. UFCSPA is a Brazilian federal public university located in the South of Brazil (Porto Alegre, Rio Grande do Sul), with an institutional focus on health sciences education, research, extension, and professional training. Its academic community includes undergraduate and graduate programs in different health-related areas, creating a favorable environment for interdisciplinary initiatives that connect scientific knowledge, clinical and laboratory practice, and internationalization. In this context, the *Talks in Clinical Lab* course was offered as an EMI experience aimed at integrating clinical laboratory content, English-mediated communication, and professional preparation for increasingly internationalized health settings.

This manuscript aims to describe and reflect on the evolution of the *Talks in Clinical Lab* course as an EMI experience in health sciences education, with particular attention to how student-centered pedagogical strategies contributed to engagement, oral participation, and the integration of clinical laboratory content with English-mediated communication.

From International Experience to an EMI Course in Clinical Laboratory Sciences

The *Talks in Clinical Lab* course originated in 2016 within a broader discussion about the shortage of medical laboratory scientists in the United States of America and the professional opportunities available to internationally trained laboratory professionals. This context raised an educational question that guided the development of the course: how could health sciences students be better prepared for a globalized professional environment in which laboratory competence and English proficiency are closely connected?

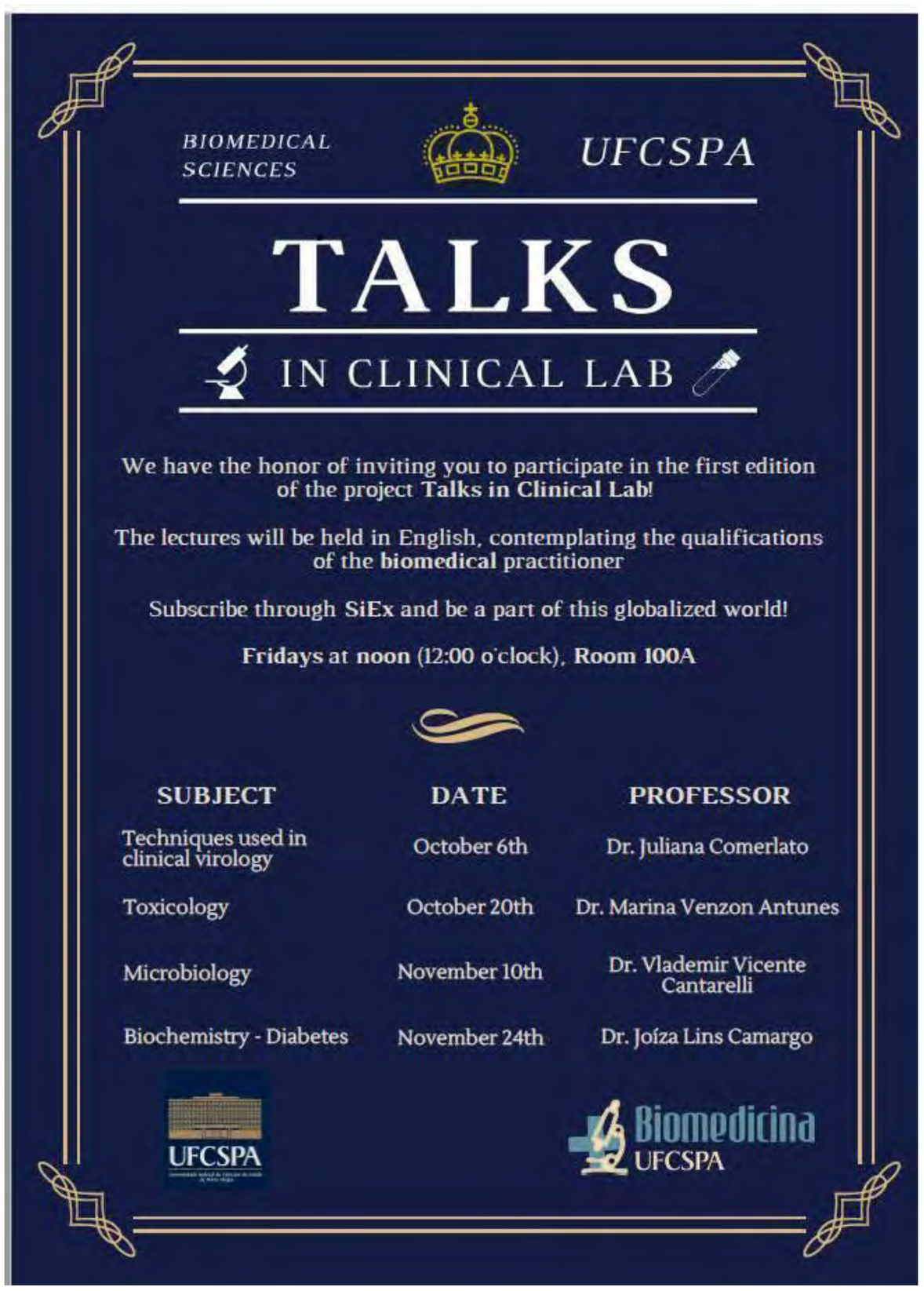
In 2017, visits to the American Society for Clinical Pathology (ASCP) and to universities with certified clinical laboratory programs expanded this reflection. These experiences provided the

teaching team with a broader understanding of international training pathways, professional expectations, and certification processes in clinical laboratory sciences. In this context, the ASCP BOC became a central reference, particularly because of its role in validating knowledge and competencies required for laboratory practice.

Back at UFCSPA, these experiences inspired the creation of an educational initiative grounded in international professional perspectives in clinical laboratory sciences. The first version was offered as a complementary extension activity with four sessions, allowing the teaching team to test the feasibility and relevance of the proposal (Figure 1). The initiative was later formalized as the elective course *Talks in Clinical Lab*.

Since its implementation, *Talks in Clinical Lab* has been offered in ten editions, reaching undergraduate students from Pharmacy, Biomedicine, and Medicine, as well as graduate students from Biosciences, Pathology, and Health Sciences. Its trajectory reflects a sustained institutional effort to create opportunities for internationalization at home in health sciences education.

Figure 1. Poster of the First Talks in Clinical Lab Extension Activity organized in 2017



Initial Course Design: Blended Learning and Expert-Led Lectures

In its initial design, *Talks in Clinical Lab* was conceived as an elective course aimed at integrating clinical laboratory content with English-mediated instruction. Its original objectives were to update students on relevant topics in clinical laboratory sciences, expose them to international professional standards, and promote familiarity with clinical and laboratory terminology in English. To achieve these objectives, certification-style questions from ASCP BOC preparation materials were used as triggers for learning and discussion. The contents reflected the multidisciplinary nature of laboratory practice, including immunology, toxicology, microbiology, and biochemistry.

The course followed a blended learning model, alternating online activities with face-to-face meetings. During distance-learning weeks, students answered selected questions from the BOC, before class. These activities allowed instructors to identify students' prior knowledge, recognize conceptual difficulties, and decide which topics required further clarification or deeper discussion during in-person sessions. The face-to-face meetings were then organized around the discussion of these topics as lecture-style sessions, with emphasis on technical reasoning, interpretation of laboratory concepts, and the use of English terminology in authentic professional contexts.

The first editions were mainly based on expert-led lectures delivered in English by invited professionals and faculty members. This format offered important strengths: it ensured scientific rigor, provided students with access to specialists in different laboratory areas, exposed them to authentic technical vocabulary, and connected the course with international standards of clinical laboratory practice. However, as the course progressed, the teaching team observed that this model did not fully promote the level of interaction expected for an EMI learning environment. This observation became a turning point in the course trajectory and led to a more focused reflection on student engagement, which is discussed in the following section.

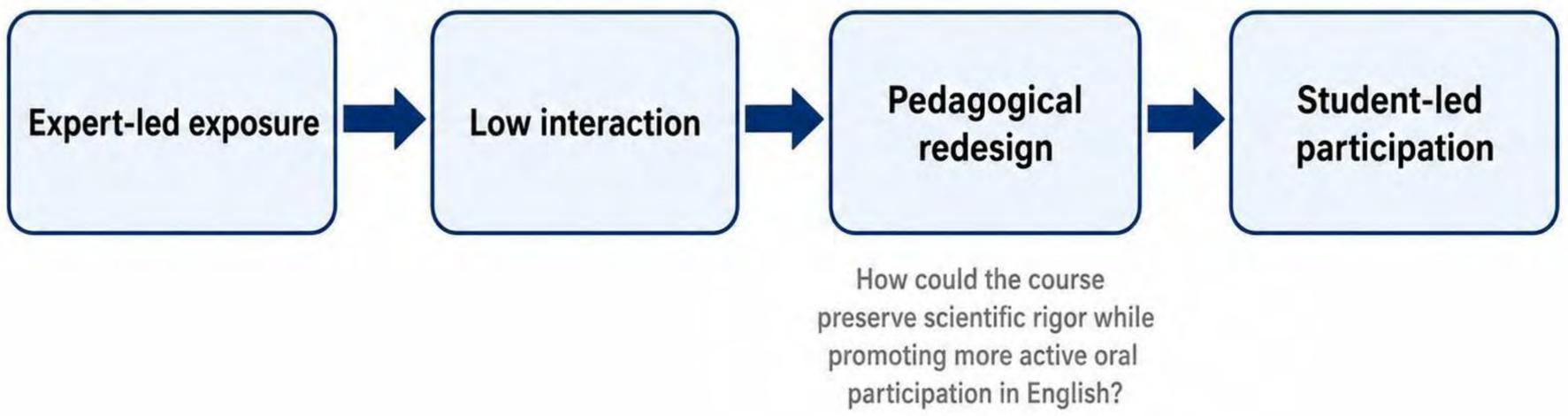
Recognizing the Engagement Challenge

As the course progressed, a central pedagogical challenge became evident: exposure to clinical laboratory content in English did not necessarily result in active oral participation. Although students engaged in the proposed activities and demonstrated interest in the scientific topics, many hesitated to speak at the teacher-centered classes. This hesitation suggested a gap between understanding content in English and feeling confident enough to discuss it orally. In an EMI environment, students are required to mobilize disciplinary knowledge, technical vocabulary, and communicative skills at the same time, which may increase insecurity, especially when they fear making linguistic mistakes in front of peers and instructors (Horwitz et al., 1986; Macaro et al., 2018).

This observation led the teaching team to reconsider engagement, during face-to-face meetings, as more than visible participation. Student engagement involved cognitive investment

in understanding laboratory concepts, behavioral participation in discussions, and emotional conditions such as confidence, belonging, and reduced anxiety when using English. The central pedagogical question then became: How could the course preserve its scientific rigor while promoting more active oral participation in English? This question guided the transition toward a more progressive and student-centered EMI approach, in which learners could gradually move from listeners to active participants in clinical laboratory discussions (Figure 2).

Figure 2. Main pedagogical challenge identified in the first editions: moving from content exposure to active student participation.



Pedagogical Redesign: Student-Centered EMI Strategies

In response to the engagement challenge observed in the first editions, the course was gradually redesigned to promote more active student participation in English. The aim was not to simplify the scientific content, but to change how students interacted with it. The course moved from a predominantly expert-led format toward a more student-centered EMI approach, in which learners were encouraged to select topics, interpret laboratory problems, explain concepts, and communicate their reasoning in English.

Student-led discussion of certification-style questions

One of the main changes was the introduction of student-led discussions based on BOC questions. Students were invited to choose questions related to clinical laboratory areas of interest, such as hematology, immunology, biochemistry, microbiology, molecular biology, or blood banking. They then prepared short presentations in English, including the interpretation of the question stem, identification of key technical terms, explanation of the alternatives, justification of the correct answer, and discussion of the distractors.

Before being shared with the class, each presentation was reviewed by a faculty member specialized in the corresponding laboratory area. This step helped ensure scientific accuracy, clarify complex concepts, and support students in organizing their reasoning. During the classroom presentation, students assumed a more active role in guiding the discussion, while instructors acted as mediators, helping with technical clarification, vocabulary, and conceptual integration when needed.

This strategy provided a structured framework for oral participation. Because students worked with questions they had selected and prepared in advance, the activity reduced the pressure of spontaneous speaking while preserving scientific rigor. At the same time, it encouraged students to connect laboratory reasoning, technical terminology, and English-mediated communication in a professional context.

Movies and Series activity

The *Movies and Series* activity was introduced to connect popular culture with scientific discussion. Students selected audiovisual productions related to health, disease, diagnosis, technology, ethics, or laboratory practice and presented them in English to the class. Examples used in the course included *CSI: Crime Scene Investigation*, *The Pitt*, and *The Last of Us*. These series allowed students to explore different dimensions of health sciences, such as forensic investigation, diagnostic reasoning, hospital routines, infectious diseases, biomedical technologies and ethical issues.

This activity offered a more familiar and accessible starting point for speaking English. Instead of beginning exclusively from technical material, students could start with narratives, characters, and situations already known from popular culture. The task also encouraged them to critically analyze how science, healthcare, laboratory work, and professional decision-making are represented in audiovisual media.

By connecting cultural references with scientific content, the activity helped increase interest, participation, and confidence. It also expanded the scope of classroom discussion, allowing students to practice English while reflecting on the accuracy, limitations, and social impact of scientific representations in media.

Icebreakers

Icebreakers were incorporated as brief, low-pressure speaking activities to reduce initial hesitation and help students use English from the beginning of each session. These activities were designed to be simple, content-related, and non-punitive, allowing students to participate without the immediate pressure of producing complex scientific explanations.

One example was *Two Truths and a Lie – Science Twist*, in which students prepared three short statements related to their academic background, laboratory experience, scientific interests, or perceptions about health sciences. Two statements were true and one was false, and classmates had to identify the false one. This activity stimulated interaction, humor, and group cohesion while encouraging students to speak in English in a low-risk context.

Another example was *Show and Tell – Lab Object*, in which an image or object related to clinical laboratory practice was shown to the class, such as a blood collection tube, microscope slide, pipette, culture plate, blood bag, reagent bottle, or laboratory instrument. Students were

invited to say one sentence about its use, relevance, or association with a laboratory procedure. These activities connected oral participation with technical vocabulary and professional objects, making English use more concrete and situated.

Role of instructors

The redesign also changed the role of instructors. Rather than acting mainly as content providers, instructors became mediators of scientific discussion and English-mediated communication. Their role was to support participation, review student-prepared materials, clarify concepts, help with technical vocabulary, and ensure scientific accuracy.

The prior review of student presentations by faculty specialists was an important component of this process. It allowed students to prepare more confidently and ensured that the content remained aligned with clinical laboratory standards. During class, linguistic support was offered when needed, but the course was not transformed into a traditional English language class. The main focus remained on intelligibility, conceptual clarity, participation, and laboratory reasoning.

This approach helped position English not as a barrier, but as a tool for scientific and professional communication. At the same time, it preserved the scientific rigor of the course while creating a safer and more progressive environment for student participation.

Outcomes and Contributions

The pedagogical redesign of *Talks in Clinical Lab* contributed to relevant perceived outcomes related to participation, critical thinking and the development of dual competences. Although some students initially hesitated to speak English, the introduction of student-centered strategies created more structured and supportive opportunities for oral participation. Instead of requiring spontaneous interaction from the beginning, the course gradually encouraged students to engage with clinical laboratory content through prepared presentations, audiovisual materials, and low-pressure speaking activities. Over ten editions, the course reached undergraduate and graduate students from different health-related programs, as summarized in Table 1.

Table 1. Student Participation Across Ten Editions of the Talks in Clinical Lab Course

Course Reach	Number/Description
Editions offered	10
Total students reached	168
Undergraduate students	119
Graduate students	49
Undergraduate programs	Pharmacy, Biomedicine, Medicine
Graduate programs	Biosciences, Pathology, Health Sciences

Scientific Competence

From the disciplinary perspective, the course supported students' engagement with key areas of clinical laboratory sciences. The use of certification-style questions encouraged students to revisit foundational concepts, interpret problem-based situations, justify correct answers, and analyze distractors. Through this process, students were invited to move beyond memorization and develop laboratory reasoning in connection with professional practice.

Linguistic and Communicative Competence

The course also contributed to the development of English-mediated communication. Students were exposed to technical terminology and encouraged to use it in presentations, question analysis, classroom discussions, and audiovisual activities. Icebreakers provided low-pressure speaking opportunities, while student-led presentations required more structured explanations. Together, these strategies supported listening, speaking, argumentation, vocabulary use, and greater confidence in discussing clinical laboratory topics in English.

Engagement and Professional Identity

A relevant contribution of the course was the shift in students' role within the EMI environment. Rather than being positioned only as learners of English, students were encouraged to act as emerging health professionals capable of discussing scientific topics in English. The redesigned activities appeared to support behavioral engagement by increasing participation, cognitive engagement by stimulating laboratory reasoning and critical analysis, and emotional engagement by creating a safer environment for oral communication. In this sense, English was progressively reframed not as a barrier, but as a tool for scientific participation, professional communication, and internationalization at home.

Illustrative Student and Teaching Staff Feedback

Although the course did not include a formal qualitative research design, voluntary comments from two students and one course instructor offered illustrative insights into how specific activities were perceived. These comments are used here as examples of the perceived contributions of the course to engagement, confidence, and English-mediated scientific communication.

"Using *movies and series* and *icebreakers* made the classes less intimidating and helped us bond. This relaxed environment gave us the confidence to speak English and discuss scientific topics more naturally. Starting with familiar media acted as a bridge, making technical language feel like a natural part of our communication, which was an incredibly positive and motivating experience." — Undergraduate student, anonymous feedback.

“The activities using *movies and series* and *icebreakers* were really good. It was challenging to speak in English in a different setting, but it was also interesting to practice it in the health care environment.”— Undergraduate student, anonymous feedback.

“As the activities progressed, I gradually became more confident. This experience reinforced the idea that the course was not an English class, but a scientific and academic activity carried out in English.”— Course instructor

Together, these reflections suggest that the course supported not only student engagement, but also instructor development. They reinforce the idea that EMI can be understood as a shared pedagogical process in which both students and instructors progressively build confidence to communicate scientific content in English.

Discussion: What This Experience Contributes to EMI in Health Sciences

The experience of *Talks in Clinical Lab* contributes to discussions on EMI in health sciences by showing that English becomes pedagogically meaningful when embedded in professional practice. In the course, English was used as a medium for engaging with laboratory reasoning, technical terminology, certification-style questions, and scientific communication, rather than as an isolated linguistic goal. This aligns with understandings of English-Medium Education as a pedagogical, disciplinary, linguistic, and institutional phenomenon, not simply the use of English as the language of instruction (Dafouz & Smit, 2020; Macaro et al., 2018).

A central implication is that engagement in EMI cannot be assumed. Even when content is professionally relevant, students may hesitate to participate orally because speaking in English requires the simultaneous mobilization of disciplinary knowledge, technical vocabulary and communicative confidence. Fear of errors or negative evaluation may inhibit oral participation, highlighting the relevance of foreign language classroom anxiety in EMI contexts (Horwitz et al., 1986).

The course also suggests that active methodologies can transform EMI into a more inclusive space for participation. Student preparation, structured oral tasks, specialist feedback, and low-pressure interaction created conditions for progressive engagement with English-mediated scientific discussion. This is consistent with active learning literature, which emphasizes discussion, problem-solving, reasoning, and meaning-making, as well as recent work on inclusive student engagement (Bonwell & Eison, 1991; Gulko et al., 2024; Prince, 2004).

Another contribution concerns the use of culturally familiar materials as bridges between everyday repertoires and scientific discourse. Audiovisual productions used in the course resonate with cinemeducation, in which films and television series serve as triggers for reflection, discussion, and learning in health professions education. In *Talks in Clinical Lab*, this approach helped students connect popular representations of science and healthcare with clinical laboratory reasoning, making English-mediated discussion more accessible (Piqué-Buisan et al., 2024).

Finally, the course reinforces EMI as a strategy for internationalization at home, particularly in public universities where international mobility is not equally accessible. By integrating clinical laboratory content, English-mediated communication, and international professional references into the local curriculum, *Talks in Clinical Lab* illustrates how internationalization can be enacted through inclusive pedagogical design, positioning English as a tool for scientific participation rather than as a gatekeeping mechanism (Beelen & Jones, 2015; Robson et al., 2018).

Lessons Learned and Future Directions

The *Talks in Clinical Lab* experience generated practical lessons for EMI initiatives in health sciences. First, oral participation should be introduced gradually. Short, low-pressure activities, such as icebreakers and object-based prompts, can help students gain confidence before moving to longer presentations or complex scientific discussions. These strategies function as active learning activities because they promote early engagement and require students to interact with content rather than only listen passively (Bonwell & Eison, 1991; Prince, 2004).

Second, authentic technical materials, such as ASCP BOC questions, are valuable when supported by teaching mediation. These questions provided professional relevance and exposed students to international standards of laboratory reasoning, while the prior review of student presentations by specialists helped preserve scientific rigor and support students' explanations.

Third, students became more engaged when they assumed active roles as presenters and discussion leaders. Selecting questions, explaining alternatives, justifying answers, and discussing distractors repositioned them as participants in scientific communication. Similarly, *Movies and Series* served as accessible triggers for discussion, connecting clinical laboratory science with familiar cultural narratives.

A further lesson was that EMI courses should combine scientific rigor with pedagogical support. In this experience, the emphasis was not on linguistic perfection, but on intelligibility, conceptual clarity, participation, and progressive development. Future editions should include more systematic evaluation through reflective questionnaires, short narratives, focus groups, or assessment rubrics integrating scientific accuracy, communication, reasoning, interaction, and communicative intelligibility. Collaboration with English language specialists and a shared repository of EMI activities for clinical laboratory sciences could also strengthen the course and support replication in other health sciences contexts.

Limitations

As an experience-based and reflective manuscript, this report has some limitations. The perceived outcomes described were not derived from a formal empirical research design, but from classroom observation, teaching experience, and informal student responses across different editions of the course. Therefore, the manuscript does not aim to establish causal relationships between the pedagogical redesign and specific learning outcomes.

No standardized pre- and post-course instruments were applied to measure changes in English proficiency, confidence, engagement, or clinical laboratory knowledge. In addition, students' profiles varied across the ten editions, including participants from different undergraduate and graduate programs, with diverse levels of prior laboratory knowledge and English proficiency. This heterogeneity enriched the course but limits comparisons between editions and broader generalizations.

The pedagogical redesign was also implemented gradually, rather than as a controlled intervention. Student-led presentations, *Movies and Series*, and icebreakers were incorporated over time in response to observed needs. Finally, the student and teaching staff testimonials included in the manuscript are illustrative and should not be interpreted as systematic qualitative data. Future editions could address these limitations by collecting structured feedback, applying pre- and post-course questionnaires, developing assessment rubrics, and documenting students' perceptions more systematically.

Conclusion

The evolution of *Talks in Clinical Lab* shows that EMI in health sciences becomes more meaningful when English is used as a space for scientific participation rather than as a filter for performance. Initially designed to expose students to clinical laboratory content, certification-style questions, and technical terminology in English, the course gradually moved from an expert-led model to a more student-centered approach. Student-led discussions, *Movies and Series* as triggers for scientific debate, and low-pressure icebreaker activities created opportunities for oral participation, critical thinking, and progressive confidence in English-mediated communication. This experience suggests that EMI initiatives in health sciences should combine scientific rigor with pedagogical support, allowing students to engage with disciplinary knowledge while developing communicative competence and professional identity. In the context of clinical laboratory education, *Talks in Clinical Lab* illustrates how internationalization at home can be enacted through inclusive, practice-oriented, and professionally meaningful pedagogical design.

Declaration on the Use of Generative AI

During the preparation of this manuscript, generative AI tools were used to assist with language revision, organization of ideas, improvement of academic style, and alignment of selected sections with the manuscript structure. The authors critically reviewed, edited, and validated all AI-assisted outputs. The intellectual content, interpretation of the course experience, selection of references, and final version of the manuscript are the sole responsibility of the authors.

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24. Positive Psychology in Organizational and Healthy Workers' Contexts: Bridging Theory, Critical Reflection, and English-Medium Education

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Abstract: This chapter reports on the design and implementation of an English-Medium Education (EME) undergraduate course entitled *Positive Psychology in Organizational and Healthy Workers' Contexts* at a Brazilian health sciences university. Conceived as one of the institution's first EME experiences, the course integrated advanced disciplinary learning with academic participation in English while fostering critical engagement with contemporary scholarship in Positive Organizational Psychology and Workers' Health. Grounded in the Job Demands-Resources and Work Engagement model, the course encouraged students to critically examine constructs such as burnout, engagement, vigor, and well-being, focusing on their theoretical foundations, methodological assumptions, and implications for organizational practice. Active and collaborative methodologies included problem-based learning, conceptual mapping, analytical-reflective writing, critical discussion of international literature, applied group activities, and interactions with guest scholars. English functioned not merely as a medium of communication but as a vehicle for scholarly participation, enabling direct engagement with international research. The chapter discusses the pedagogical principles underpinning the course and the lessons learned from implementing EME in an undergraduate psychology context. The experience suggests that integrating content, language, and critical inquiry can strengthen academic internationalization at home, foster scholarly autonomy, and prepare students to contribute to international debates on workers' health and organizational well-being.

Keywords: Positive Organizational Psychology, English-Medium Education, Internationalization at Home, Workers' Health, Graduate Education.

Rationale and Conceptual Foundations

As contemporary workplaces face increasing challenges related to workers' well-being, mental health, and organizational sustainability, Positive Organizational Psychology (Seligman & Csikszentmihalyi, 2000; Peterson, 2006)[46] has emerged as an important field for understanding the psychological and organizational conditions that foster healthy, sustainable workplaces. Building on these developments, we designed and implemented an undergraduate-level course entitled *Positive Psychology in Organizational and Healthy Workers' Contexts* at the Federal University of Health Sciences of Porto Alegre (UFCSPA). The initiative provided students with an opportunity to engage critically with national and international scholarship while examining the theoretical foundations and practical implications of the field.

Anchored in key frameworks such as the Job Demands – Resources and Work Engagement (JDR-WE)[47] model (Demerouti et al., 2001; Bakker & Demerouti, 2007), the discipline moved beyond descriptive engagement with concepts including burnout, engagement, vigor, and

46 Positive Psychology is the scientific study of the conditions and processes that enable individuals and communities to thrive, shifting the focus from pathology and dysfunction toward human strengths, well-being, resilience, and optimal functioning (Seligman & Csikszentmihalyi, 2000; Peterson, 2006).

47 The JD–R model proposes that employees' well-being depends on the balance between job demands, which consume physical and psychological resources, and job resources, which support motivation, engagement, and healthy performance (Demerouti et al., 2001; Bakker & Demerouti, 2007).

dedication. It encouraged students to examine their ontological assumptions, methodological foundations, and socio-organizational implications, particularly in relation to workers' health. By situating the field within broader debates on work, health, and organizational responsibility, the educational experience sought to cultivate analytical depth and critical inquiry rather than passive theory consumption.

A distinctive feature of this initiative was its adoption of English as the Medium of Education (EME). As one of the first EME courses offered at UFCSPA, it was intentionally designed to integrate disciplinary learning, academic communication, and internationalization. Because much of the foundational literature in Positive Organizational Psychology is produced and disseminated in English, the course provided direct access to international scholarship while strengthening students' ability to critically read, debate, and contribute to academic discussions in English.

English, however, was never treated as an end in itself. Rather, it functioned as the shared medium through which rigorous discussion, collaborative meaning-making, and reflexive analysis could take place. Within this environment, students were encouraged to position themselves as critical interlocutors capable of interrogating assumptions, contextualizing findings within Brazilian realities, and articulating their perspectives within broader academic conversations. In this sense, the course embodied an institutional commitment to integrating content and language in higher education, fostering scholarly autonomy, and preparing undergraduate students to navigate and contribute to the evolving international landscape of Organizational Psychology and Workers' Health.

Conceptual Foundations and Course Goals

The course was conceptually organized around the Job Demands–Resources and Work Engagement (JDR-WE) model, which provided the principal framework for examining burnout, engagement, well-being, and organizational performance. Nevertheless, students were encouraged to go beyond these constructs as fixed categories or ready-made frameworks, and explore their epistemological underpinnings, methodological assumptions, and practical implications within organizational and health contexts.

Through close engagement with foundational literature, participants examined how central concepts have evolved over time, how they are operationalized and validated in empirical research, and how they inform organizational interventions. Particular attention was given to the interface between Positive Organizational Psychology and Workers' Health, situating engagement and well-being within broader discussions of occupational sustainability, prevention, and organizational responsibility.

A central learning goal was to cultivate critical inquiry rather than theoretical reproduction. Students were encouraged to question how international models are interpreted, adapted, or challenged within Brazilian organizational realities, fostering dialogue between global scholarship

and local professional contexts. This emphasis on problematization sought to develop reflexive researchers and practitioners capable of evaluating theoretical models in light of contextual, cultural, and organizational complexities. Offering the discipline in English further reinforced this objective. Academic English development was not framed as an ancillary goal but as an integral component of scholarly participation. By engaging directly with English-language texts and articulating their analyses in English, students strengthened their ability to navigate international literature, contribute to global debates, and position their own work within transnational scholarly conversations (Dearden, 2014; Wächter & Maiworm, 2014).

The course also sought to connect disciplinary knowledge with broader societal challenges. Its focus on workers' well-being aligned with Sustainable Development Goal 3 (Good Health and Well-Being); its emphasis on healthy and sustainable organizational practices resonated with SDG 8 (Decent Work and Economic Growth); and its integration of critical disciplinary learning within an English-medium environment contributed to SDG 4 (Quality Education). In this way, theoretical inquiry was positioned not as an isolated academic endeavor, but as a socially responsive practice connected to professional responsibility and global sustainability.

How We Worked to Reach the Course Goals

To achieve the conceptual and critical objectives outlined above, we structured the discipline around active, dialogic, and collaborative methodologies (Lave & Wenger, 1991) that align content rigor with linguistic development. The course was delivered entirely in English and adopted a seminar-based format grounded in Problem-Based Learning (PBL) (Barrows & Tamblyn, 1980; Dolmans et al., 2005), Collaborative Learning (Bruffee, 1999; Dillenbourg, 1999), and the pedagogical principles of English-Medium Education (Dafouz & Smit, 2020).

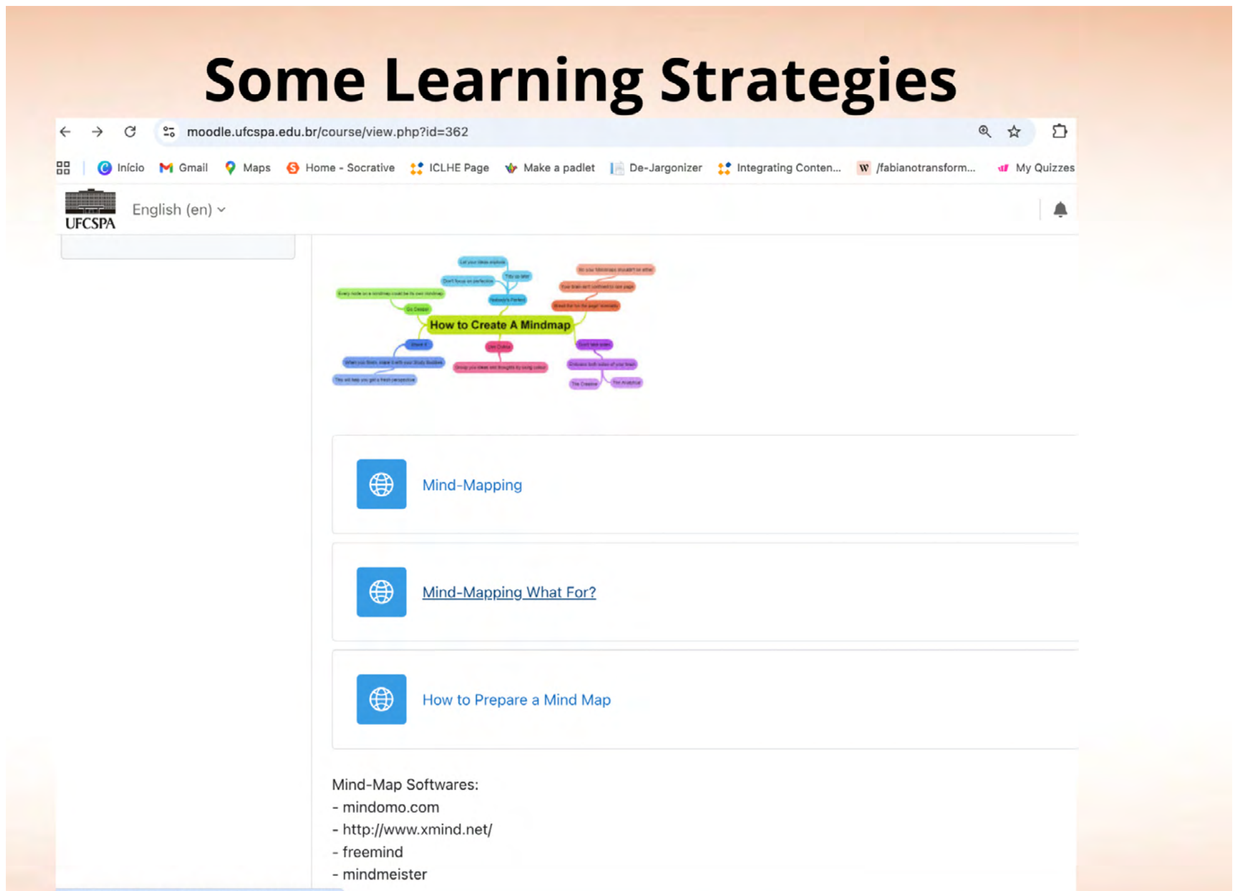
The course operated as a sustained process of collective inquiry in which each meeting built upon mandatory analytical reading of selected English-language texts, requiring students to engage deeply with theoretical arguments before class discussions. Learners in the course consistently demonstrated a remarkably high level of preparation and intellectual engagement, sustaining thoughtful discussions in which they critically examined concepts, challenged assumptions, and built on one another's contributions. The classroom thus became a space for structured debate, conceptual clarification, and critical examination rather than passive transmission of content.

Conceptual Mapping and Analytical–Reflective Files

A central pedagogical strategy involved the development and iterative revision of conceptual maps. Students developed conceptual maps to visually represent theoretical relationships among key constructs - such as job demands, job resources, burnout, engagement, and performance -, thereby externalizing their understanding and making conceptual tensions visible. More than

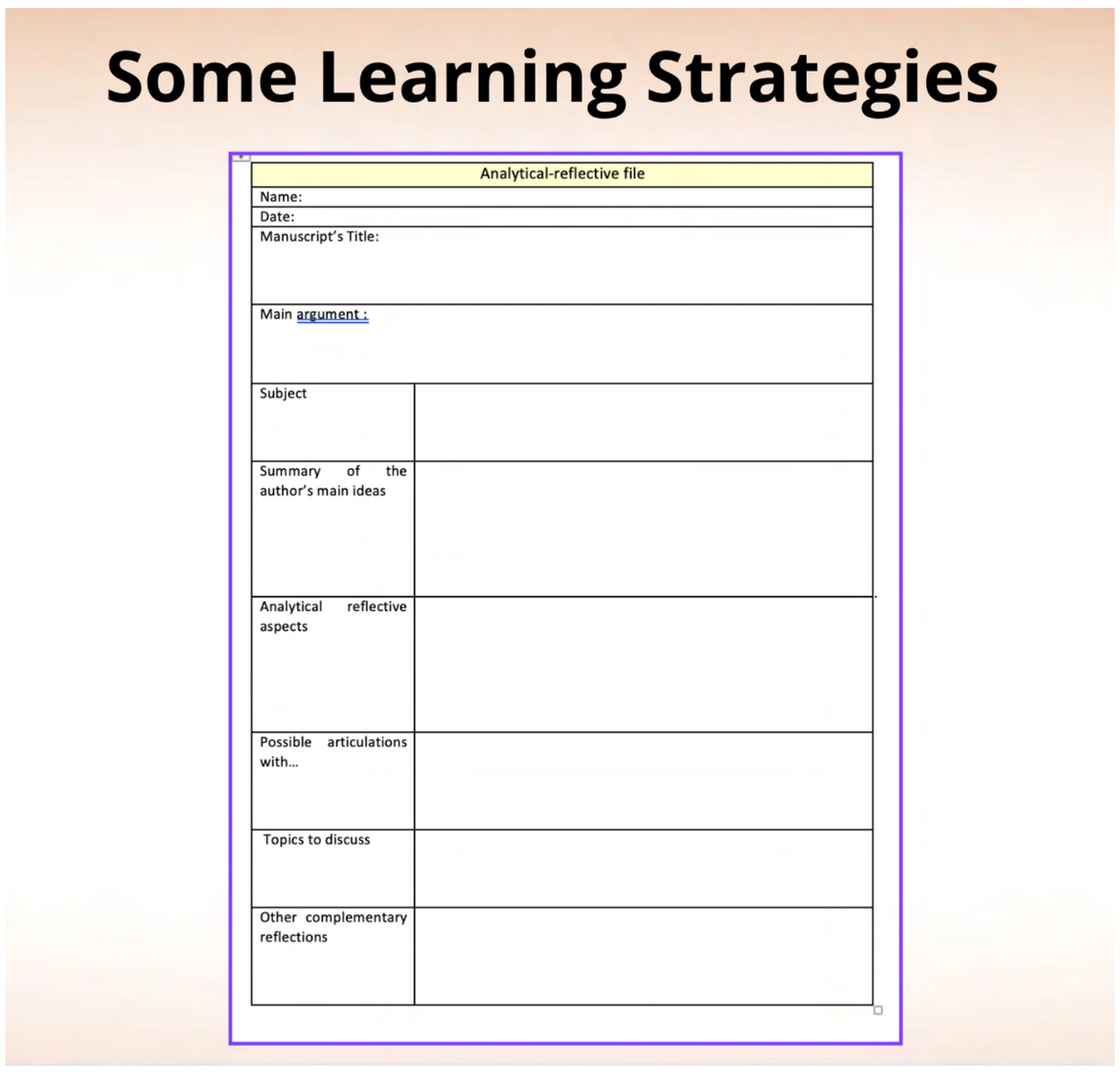
a study technique, concept mapping functioned as an epistemic exercise: it required students to interrogate definitions, distinguish overlapping constructs, and articulate theoretical hierarchies.

Figure 1. Learning Strategies on Moodle platform.



Complementing concept mapping, students also prepared analytical-reflective files. In these structured documents, participants synthesized arguments from the readings, identified ontological assumptions, critiqued methodological approaches, and reflected on implications for workers' health. This activity reinforced analytical reading while further strengthening learners' academic writing in English.

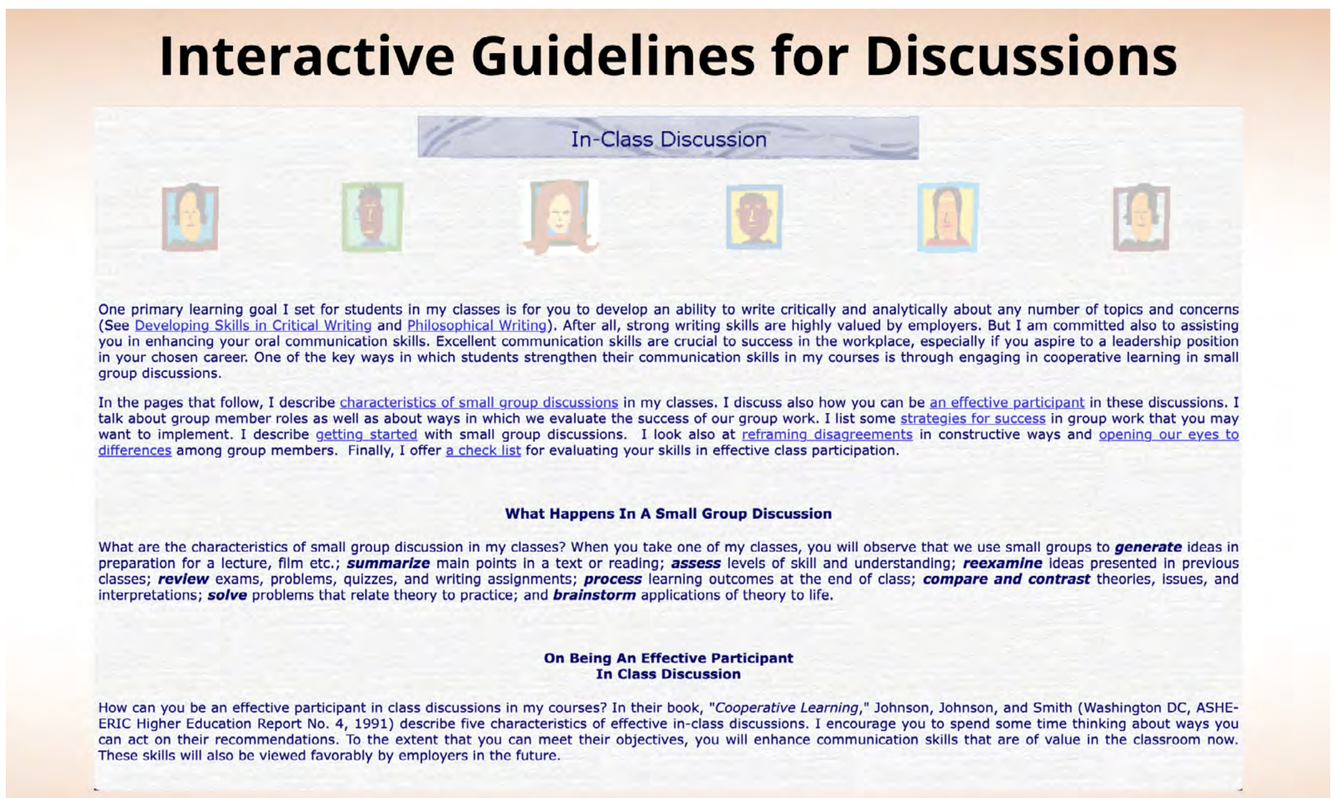
Figure 2. Learning Strategies on Moodle platform.



Critical Discussion and Collaborative Meaning-Making

Classroom discussions were guided by structured prompts designed to promote equitable participation and depth of analysis. Students presented central concepts, debated interpretative divergences, and collectively examined how theoretical propositions can inform organizational interventions.

Figure 3. Interactive Guidelines for Discussion on Moodle platform.



These discussions were not limited to summarizing texts. Instead, they centered on questions such as:

- How are engagement and well-being conceptualized across different cultural contexts?
- What assumptions about productivity and organizational performance underlie these models?
- How do such frameworks interface with the realities of Brazilian workers?

Through collaborative dialogue, students increasingly positioned themselves as critical interlocutors rather than passive recipients of international scholarship.

Applied Practical Activities

The course also incorporated group-based applied activities involving planning, data collection, data organization, and interpretation of findings. These practical components required students to operationalize theoretical constructs and examine their relevance within real or simulated organizational contexts. By engaging in applied tasks, students bridged abstract theory and empirical inquiry, strengthening their understanding of how Positive Organizational Psychology informs Workers' Health initiatives.

These activities also strengthened the integration of disciplinary learning and academic communication adopting EME. Learners negotiated research design, articulated analytical

decisions, and presented their interpretations, thereby using English as the medium through which disciplinary inquiry was collaboratively conducted.

Guest Scholars and Dialogic Expansion

Invited guests with recognized expertise in the field further expanded the intellectual scope of the course. Their participation situated classroom exchanges within broader academic networks and modeled scholarly dialogue. They engaged directly with the themes under discussion, offering theoretically grounded perspectives, responding to students' questions, and demonstrating how academic arguments are developed, justified, and debated within the field. Their contributions were deliberately aligned with the course objectives, ensuring that these interactions remained conceptually rigorous while exposing participants to diverse disciplinary viewpoints. These encounters illustrated how scholarly dialogue unfolds in professional and research communities, providing students with authentic opportunities to engage in evidence-based argumentation, critical questioning, and intellectually open dialogue.

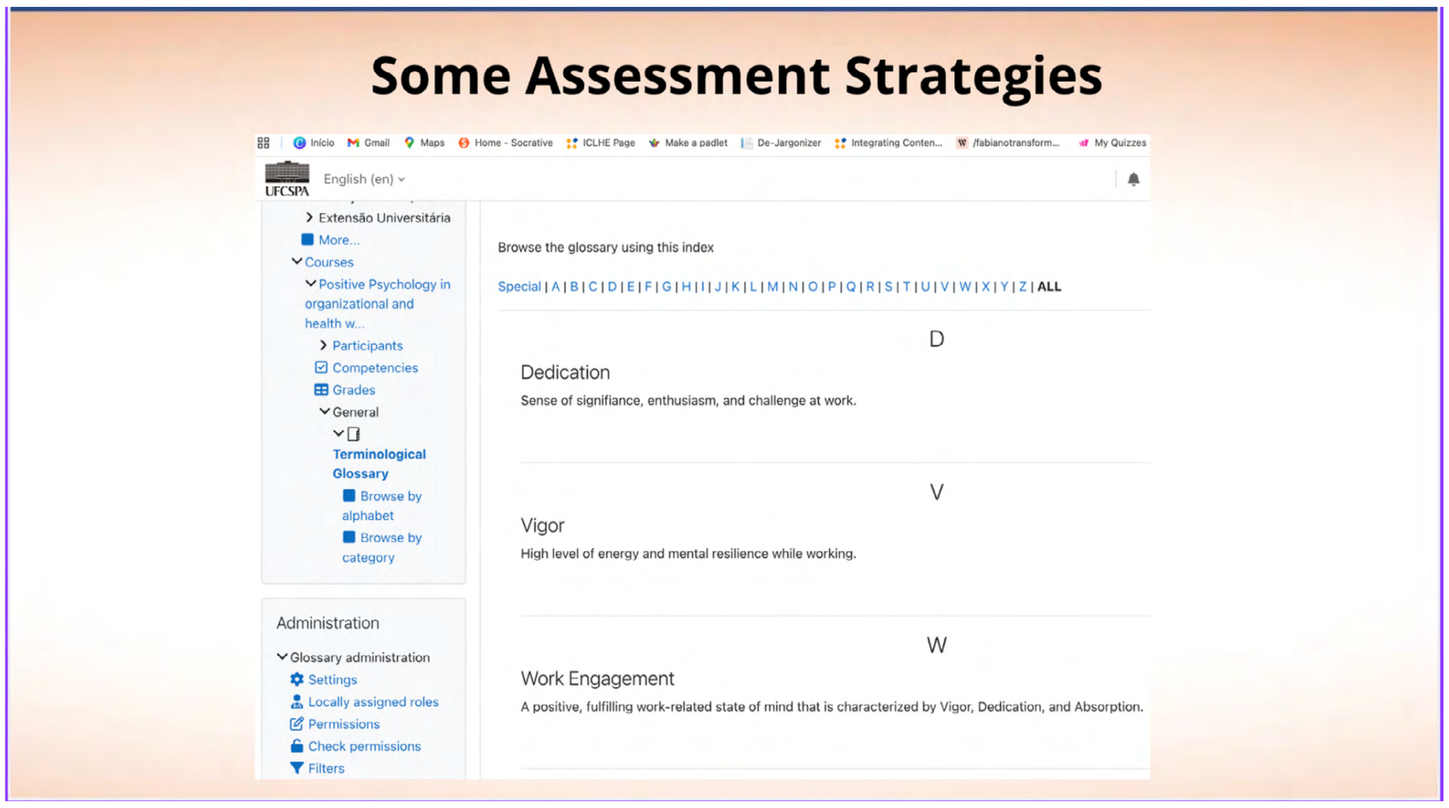
Assessment as Reflexive Practice

Assessment was structured to reflect the course's integrative philosophy. It included:

- Concept mapping and analytical-reflective files
- Oral presentations and discussion of core theoretical concepts
- Design, facilitation, and discussion of group-based practical activities

Rather than rewarding factual recall, assessment emphasized students' ability to synthesize theoretical perspectives, interpret evidence, apply conceptual frameworks, and engage in collaborative reasoning. Because all assessment tasks required participating undergraduates to articulate, justify, and discuss disciplinary knowledge in English, evaluation also functioned as an opportunity for scholarly participation rather than simply a measure of learning outcomes. In this way, assessment reinforced the course's commitment to critical engagement, scholarly participation, and epistemic development.

Figure 4. Assessment Strategies on Moodle platform.



Why This EME Experience Was Transformative

Beyond its conceptual and methodological design, this course was distinctive in institutional and pedagogical terms. It was among the first undergraduate-level disciplines at UFCSPA to be fully conducted in EME, marking an important step in the university's trajectory toward academic internationalization (Freitas et al., 2020).

What made this experience transformative, however, transcended the use of English and lay in the way language and content were integrated in practice. Throughout the course, English was consistently used to introduce concepts, examine theoretical perspectives, respond to students' questions, and facilitate disciplinary discussion. This contributed to establishing an atmosphere of academic legitimacy in which the language functioned as a shared medium for scholarly exchange rather than as an object of study.

Equally significant was the students' posture from the very first class, as they displayed notable academic self-awareness as psychology undergraduate students. There was a collective commitment to being competent interactants — not simply fluent speakers, but responsible academic communicators. Interactants carefully articulated their contributions, negotiated meaning collaboratively, and demonstrated concern for conceptual accuracy alongside linguistic clarity.

This shift from "speaking English" to "participating as scholars in English" was one of the course's most meaningful outcomes. The classroom became a shared space of negotiated perspectives, where disciplinary identity and linguistic practice evolved together. Language was neither ornamental nor evaluative; it functioned as a tool for inquiry, debate, and intellectual positioning.

For the instructors, the experience also required mutual trust and flexibility. The language teacher engaged with the dense theoretical content of a psychology classroom, while the

content teacher embraced interactive methodologies and dialogic assessment practices. This partnership expanded pedagogical possibilities and reinforced the value of collaborative teaching in English-medium contexts.

In this sense, the course proved transformative for both students and the institution. It demonstrated that rigorous theoretical engagement, critical examination, and high-level academic interaction can occur productively in English without compromising conceptual depth. Rather than diluting disciplinary content, the EME format amplified students' awareness of their scholarly voice within international conversations.

Some Lessons We Have Learned Through This EME Experience

The experience of offering Positive Organizational Psychology through EME revealed dynamics that extended beyond language acquisition and methodological experimentation. It revealed that when linguistic demands are aligned with intellectual purpose, English ceases to be perceived as a barrier and becomes an instrument of scholarly positioning.

One of the most significant lessons concerns academic identity. Students approached the course as emerging researchers, rather than language learners. The experience showcased that when expectations are clearly articulated and conceptual rigor is maintained, undergraduates are fully capable of navigating dense theoretical debates while preserving analytical depth. Academic confidence, in this sense, is not built on fluency alone, but on clarity of reasoning and shared responsibility for meaning-making.

A second lesson relates to the partnership between content and language expertise. Rather than operating in parallel, both dimensions became mutually reinforcing. The integration of content expertise and language expertise fostered an environment in which conceptual precision and linguistic articulation evolved together.This collaborative arrangement reduced hierarchical distinctions and highlighted the complementarity of disciplinary and linguistic knowledge.

We also learned that critical engagement intensifies in multilingual spaces. Discussing foundational models, such as JDR-WE, in English encouraged students to confront terminology, interrogate definitions, and compare interpretative nuances more explicitly than they might have in a monolingual setting. The additional layer of linguistic negotiation often deepened conceptual reflection rather than simplifying it.

Finally, this experience reinforced an institutional insight: whereas internationalization is still often framed primarily through mobility programs and external partnerships, our experience suggests that it can also be cultivated within the classroom, through intentional pedagogical design that integrates content, language, and critical inquiry. By fostering analytical rigor, dialogic engagement, and scholarly participation in English, the course contributed to strengthening the university's academic internationalization at home (Beelen & Jones, 2015).

Ultimately, this EME experience confirmed that, when thoughtfully integrated, theoretical sophistication, reflexive critique, and international academic dialogue can become mutually

reinforcing components of higher education. Taken together, these lessons suggest that EME can create conditions in which students progressively move from engaging with disciplinary knowledge to participating in disciplinary communities (Lave & Wenger, 1991). In our experience, this shift was supported not simply by the use of English, but by a pedagogical design that integrated inquiry, dialogue, collaboration, and academic participation.

Negotiated Perspectives: Content and Language in Dialogue

One of the most meaningful dimensions of this experience unfolded not only among students but also between instructors. Teaching this course required a continuous dialogue of perspectives between content expertise and language expertise - a dialogue that reshaped both pedagogical practice and professional identity.

For the language teacher, participating in an undergraduate Psychology discipline posed both challenge and opportunity. Navigating dense theoretical discussions on engagement, burnout, and occupational health demanded immersion in conceptual debates that extended beyond traditional language instruction. The task involved facilitating clarity of argument, supporting disciplinary discourse, and sustaining an environment in which complex ideas could circulate confidently in English. This shift expanded the understanding of language teaching as discourse mediation and epistemic support within a specialized field.

For the psychology teacher, the collaboration also prompted changes in the pedagogical practice. Engaging with interactive methodologies, collaborative assessment, and structured dialogic practices opened new possibilities for classroom dynamics. The integration of EME principles and active-learning strategies fostered greater student participation, more transparent evaluation processes, and richer collective reflection. The classroom became less a site of content delivery and more a shared arena of inquiry.

This mutual adaptation required pedagogical trust and flexibility. Planning sessions required ongoing discussion of pacing, expectations, linguistic scaffolding, and conceptual emphasis. Decisions were co-constructed, reinforcing a model of interdisciplinary partnership rather than hierarchical specialization.

Over time, the collaboration revealed that content and language are not parallel tracks but interdependent dimensions of academic formation (Wilkinson & Walsh, 2015). The presence of two disciplinary perspectives enriched classroom dialogue, diversified feedback, and expanded the pedagogical repertoire available to students.

Ultimately, the negotiated nature of this partnership mirrors the very principles the course sought to cultivate: reflexivity, openness to alternative perspectives, and commitment to shared meaning-making. This experience suggests that the integration of content expertise and language expertise is not simply an instructional arrangement, but a pedagogical partnership capable of expanding students' opportunities for disciplinary participation, scholarly communication, and academic internationalization.

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25. Integrating Ethics and Language in Higher Education: Two English-Medium Experiences

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Abstract: This chapter presents two undergraduate English-Medium Education (EME) experiences developed at a Brazilian health sciences university: *On the Book Justice* and *Ethics & Movies*. Designed as some of the institution's first English-medium courses, both seminars explored the integration of ethical deliberation and language use in higher education. Rather than treating English as an isolated linguistic competence, the courses positioned it as the medium through which students engaged in moral reasoning, argumentation, disagreement, and reflection on contemporary ethical issues. Drawing on active and dialogical pedagogies, students participated in debates, peer feedback activities, argumentative writing, and student-led discussions centered on topics such as justice, discrimination, human rights, and professional responsibility. The chapter discusses the pedagogical principles underpinning these experiences, including the understanding of ethics as a discursive practice, the role of English in internationalized health education, and the collaborative partnership between an ethics specialist and a language educator. The experiences suggest that EME can move beyond content delivery to become a space for ethical formation, academic literacy development, and internationalization at home, while fostering students' ability to participate in global professional and academic communities.

Keywords: Ethics Education, English-Medium Education, Internationalization at Home, Academic Literacy, Health Sciences Education.

Why Ethics through EME?

Ethical deliberation is not an accessory to health sciences education. It is central to professional formation. Decisions in healthcare are rarely purely technical; they are value-laden, relational, and socially embedded. Training future professionals therefore requires more than exposure to normative principles — it requires practice in moral reasoning, argumentation, and the respectful negotiation of divergent perspectives (Andriessen, 2006; Beauchamp & Childress, 2019; Nussbaum, 2010).

At the same time, contemporary health education operates within an increasingly internationalized landscape, in which English has become the primary language of global scientific communication, international collaboration, and cross-border professional dialogue. Offering ethics courses through English-Medium Education (EME) therefore represents not merely a linguistic choice, but a pedagogical and institutional positioning (Airey, 2012; Dafouz & Smit, 2020; Macaro et al., 2018).

At the Federal University of Health Sciences of Porto Alegre (UFCSPA), two seminar experiences - *On the Book Justice* and *Ethics & Movies* - emerged from this understanding. Both were among the first EME courses offered at the university and were designed for health sciences students who self-declared sufficient English proficiency to participate actively in classroom discussions. This self-assessment reflected a situated view of language proficiency (Scaramucci, 2000), according to which proficiency is defined not as an abstract or fixed level of competence, but in relation to the communicative demands of a specific context - proficiency for

what, to do what, and under which conditions. In these seminars, participants were expected to engage in oral discussions, debates, and collaborative learning activities in English. However, because the pedagogical focus was ethical deliberation rather than language assessment, students were allowed to write the final essay in Portuguese if they considered this more appropriate for expressing complex ethical arguments. Both courses thus adopted English not as a subject of study, but as the medium through which ethical reasoning would be practiced. Their premise was that developing reflexive skills on ethical issues and the ability to articulate them in English are complementary components of contemporary health sciences education. In this way, English became the language of inquiry, discussion, and ethical deliberation rather than an end in itself.

Conceptual Anchoring: Why Is Ethical Deliberation a Discursive Practice?

Both courses were grounded in the understanding that ethics is not merely the acquisition of moral theories, but the practice of reasoned judgment in dialogue with others. Following broader understandings of ethics as dialogical practice (Habermas, 1990; Nussbaum, 2010), the seminars were structured around deliberation rather than transmission.

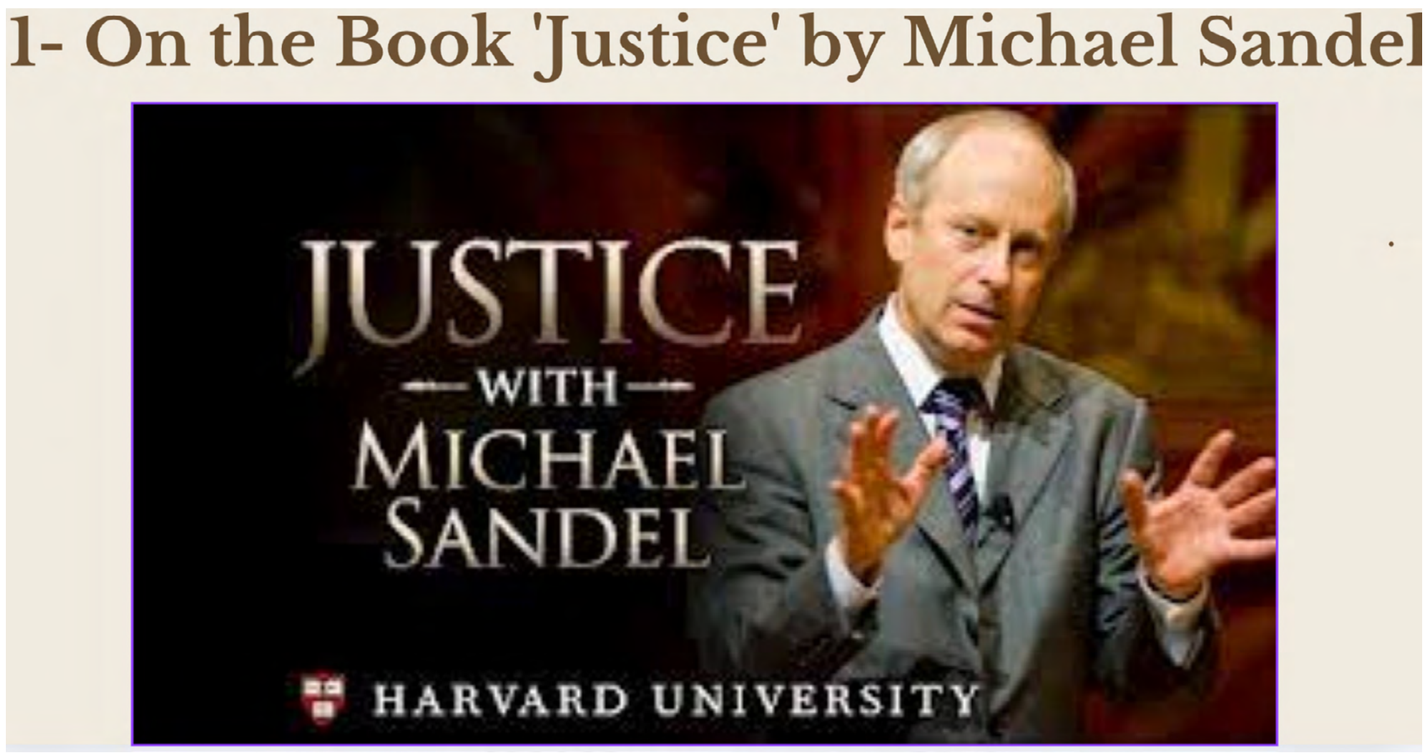
The *On the Book* '*Justice'* seminar drew explicitly on Michael Sandel's work and video series, which use contemporary moral dilemmas to stimulate ethical deliberation and public reasoning (Sandel, 2009, 2011), inviting students to examine foundational moral frameworks - including utilitarianism, Kantian deontology, Aristotelian virtue ethics, and contemporary debates on justice (See Figure 1). Topics such as same-sex marriage, affirmative action, surrogate motherhood, the morality of lying, and the pricing of life were not treated abstractly. Instead, they were debated collectively, with students required to articulate positions, respond to counterarguments, and tolerate disagreement. As Sandel's (2009) widely disseminated Harvard course demonstrates, moral reasoning becomes pedagogically transformative when students are invited not merely to learn theories, but to inhabit ethical positions publicly.

The course thus coached students in:

- Analyzing rationales in moral discussions
- Identifying underlying normative assumptions
- Engaging in informed-opinion exchanges
- Practicing disagreement with intellectual respect
- Coexisting with divergent peer perspectives

English functioned as the medium of this deliberation through which readings, video episodes, classroom discussions, and written assessments took place. Assessment was also carried out in the language, reinforcing the understanding that ethical reasoning and linguistic articulation are inseparable in global professional contexts.

Figure 1. Course Source



Source: https://sandel.scholars.harvard.edu/justice

The *Ethics and Movies* seminar, in turn, extended this framework into the realm of narrative ethics. Instead of beginning with explicit moral theory, the course used cinematic works - such as *Twelve Angry Men*, *Blade Runner*, *Frida*, *Spotlight*, and *The Merchant of Venice*[48] (See Figure 2 for other works adopted.) as catalysts for ethical reflection. Through narrative, students encountered moral problems embodied in characters, institutions, and social conflicts, activating moral imagination and interpretive judgment.

This format allowed for:

- The exploration of moral dilemmas in contextualized settings
- Engagement with themes of justice, discrimination, human rights, identity, and power
- Analysis of arguments emerging from lived situations rather than purely theoretical constructs
- Integration of intersectoral materials, including discussions on gender and racial inequalities

Here again, English was not ornamental. Essays[49], peer feedback, oral leadership of discussions, and final submissions were all conducted in the language, and it became the arena for argument construction, narrative interpretation, and ethical positioning.

48 Lumet, S. (Director). (1957). *Twelve angry men* [Film]. Orion-Nova Productions.
Scott, R. (Director). (1982). *Blade Runner* [Film]. Warner Bros.
Taymor, J. (Director). (2002). *Frida* [Film]. Miramax Films.
McCarthy, T. (Director). (2015). *Spotlight* [Film]. Open Road Films.
Radford, M. (Director). (2004). *The merchant of Venice* [Film]. Delux Productions.

49 Provided students declared willingness to write in English, as previously stated, which has been the case of most participants so far.

Figure 2. Teachers' Moodle Platform.

How Did Two Courses Become One Pedagogical Trajectory?

Although distinct in format, both courses shared core principles:

1. Ethics as dialogical practice rather than passive content absorption
2. English as the medium of ethical formation rather than a separate linguistic discipline
3. Active methodologies centered on student agency
4. Continuous assessment privileging participation, reflection, writing, and peer interaction

Over time, the pedagogical model matured by influence of participants' feedback (See Figures 4, 5 and 6) and our experience as teachers in the course. The later iterations emphasized:

- Structured peer feedback
- Revision cycles
- Student-led discussions
- Greater explicitness regarding contextualized English use
- Reinforcement of dialogical competence as a learning outcome

These shared principles did not emerge accidentally; they reflect a deliberate pedagogical philosophy regarding the integration of ethics and language. This trajectory demonstrates that EME in ethics education can move beyond simple exposure to content in English. It can become a structured space for training professionals capable of articulating morally complex positions within international contexts.

How Did We Foster Ethical Deliberation through EME?

To reach the dual objective of fostering ethical deliberation and strengthening contextualized English use, both seminars adopted pedagogical strategies aligned with active and dialogical methodologies. Rather than positioning students as passive recipients of moral theories, we structured learning around participation, argumentation, and collective meaning-making. Within this framework, English functioned not merely as the language of instruction but as the medium through which students learned to participate in academic discourse - that is, to formulate evidence-based arguments, justify positions, engage critically with alternative viewpoints, and negotiate meaning through disciplinary dialogue.

In the *Justice* seminar, the analysis of Sandel's episodes functioned as a springboard for structured moral debate. Each session required students to identify the normative assumptions underlying specific arguments and to articulate and defend their own positions using disciplinary concepts. Classroom exchanges were not assessed on linguistic accuracy, but on the quality of argumentation, clarity of reasoning, responsiveness to counter-arguments, and intellectual openness. Written assessments - including the analysis of journalistic reports containing moral dilemmas - further reinforced the integration of ethical reasoning and academic discourse by requiring them to organize evidence, construct coherent arguments, and communicate ethical analyses through academic writing.

In *Ethics and Movies*, this dialogical model expanded through narrative engagement. Films such as *The Beauty and the Beast, Match Point,* and *Rope*[50] provided embodied moral situations in which students could examine justice, discrimination, human rights, and institutional responsibility. Here, peer review became a central component: students produced essays, offered structured feedback to colleagues, revised their texts, and led discussions. These interactive practices approximated the dialogical conventions of academic communities, where knowledge is refined through critique, revision, and collaborative inquiry. The learning process thus combined argument construction, interpretive analysis, and participation in academic discourse through English.

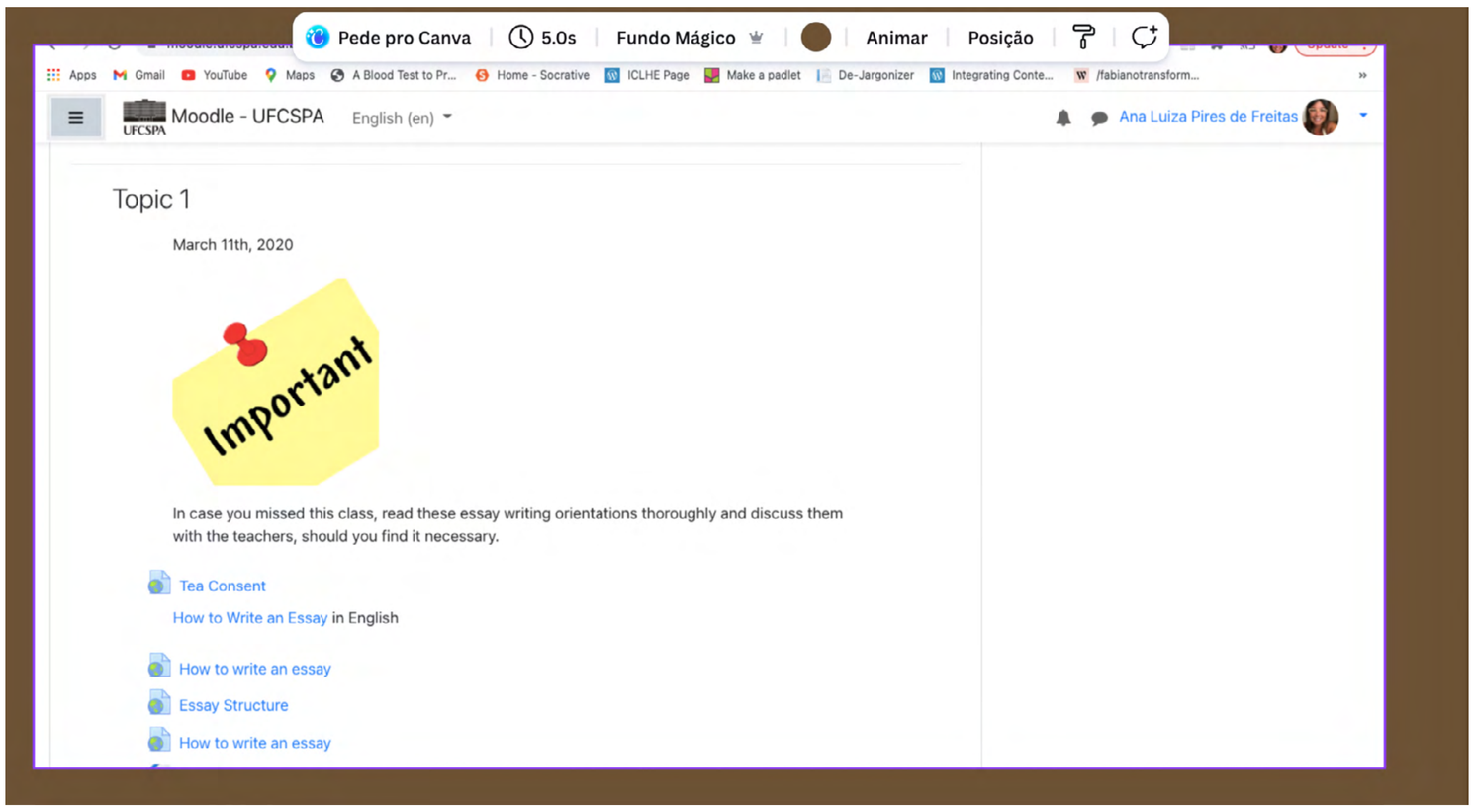
Importantly, essay writing was explicitly scaffolded from the outset. Early in the semester, we dedicated time to discussing the structure of argumentative essays, expectations regarding thesis formulation, coherence, and evidence use. As a common starting point, all students engaged with the short video *Tea Consent*[51] (See Figure 3), which served as a concrete example for analyzing how ethical arguments can be constructed clearly and persuasively. This initial shared reference allowed students to practice identifying claims, assumptions, and rhetorical strategies before moving on to more complex cinematic narratives. Thus, when students were

50 Condon, B. (Director). (2017). *Beauty and the Beast* [Film]. Walt Disney Pictures.
Allen, W. (Director). (2005). *Match Point* [Film]. BBC Films.
Hitchcock, A. (Director). (1948). *Rope* [Film]. Warner Bros.

51 https://www.youtube.com/watch?v=pZwvrxVavnQ

later invited to produce essays on one of the films in the program, they did so with prior analytical rehearsal rather than as an isolated writing task.

Figure 3. Teachers' Moodle Platform.



In addition, the dialogical dimension of the course was strengthened by assigning students responsibility for leading discussions. Individually or in pairs, they took turns preparing and conducting the debate on each film. Their role included gathering contextual information about the movie — such as its director, production background, thematic relevance, and critical reception — and designing questions to stimulate ethical reflection among peers. During these sessions, students became the main actors of the learning process, while the instructors assumed a facilitative role, intervening only when clarification, conceptual deepening, or mediation was required. This redistribution of discursive authority reinforced the principle that ethical deliberation and language use are practices developed through participation rather than passive reception.

These pedagogical choices resonate with broader understandings of English-Medium Education as more than language exposure. As Dafouz and Smit (2020) argue, EME involves institutional, pedagogical, and discursive dimensions. In our case, English functioned not as an auxiliary skill but as the space in which moral reasoning unfolded. Rather than separating "content" from "language," the seminars were designed around the understanding that ethical argumentation is developed through linguistic interaction, making ethical reasoning and language use inseparable within disciplinary dialogue.

Moreover, by privileging debate, peer feedback, and student-led discussions, the courses responded to critiques identified in EME research that content instruction in English can sometimes marginalize interactive and dialogical practices (Macaro et al., 2018). Instead of reducing language to a transparency condition, we foregrounded it as a medium of epistemic participation.

Why Were These EME Experiences Transformative?

As previously mentioned, these seminars were among the early English-medium experiences at UFCSPA. Their significance, however, extended beyond institutional novelty.

First, they reframed English from an external requirement to an internal academic practice. Students were not asked to adopt the language in isolation; they were required to deliberate, disagree, and justify positions in English. The language became the arena for intellectual risk-taking.

Second, the courses cultivated academic self-awareness. Students confronted the challenge of articulating morally complex positions in a language that was not their first. This often led to heightened metacognitive reflection about argument structure, lexical precision, and rhetorical tone. English, in this sense, functioned as a reflective mirror for ethical positioning.

Third, the seminars modeled a form of pedagogical courage. Ethical disagreement was not avoided; it was structured. Divergent views on affirmative action, same-sex marriage, distributive justice, or institutional corruption were welcomed within a framework of respect. In doing so, the courses embodied a form of communicative ethics aligned with discourse-oriented perspectives (Habermas, 1990), where the legitimacy of claims emerges through reasoned exchange.

Finally, the transformative dimension lay in the integration of professional formation and internationalization. By engaging in ethical deliberation in English, students engage in communicative practices relevant to linguistically and culturally diverse healthcare contexts, where moral disputes, interdisciplinary collaboration, and cross-cultural dialogue increasingly unfold across shared communicative spaces.

How Can Content and Language Teachers Work as Epistemic Partners?

A defining feature of these experiences was the collaborative partnership between a content specialist in ethics and a language educator. This partnership did not operate under a support model; rather, it was structured around epistemic complementarity.

The ethics instructor contributed expertise in moral philosophy, applied ethics, and health-related normative debates. The language educator brought expertise in academic discourse, interactional facilitation, and linguistic mediation. Together, we designed tasks in which argumentation, feedback, and dialogical exchange were foregrounded. Besides, we experienced freedom of expression, and even *a harmonious kind of disagreement* at times, as in moments in which we had different opinions and defended distinct perspectives about the topics under discussion.

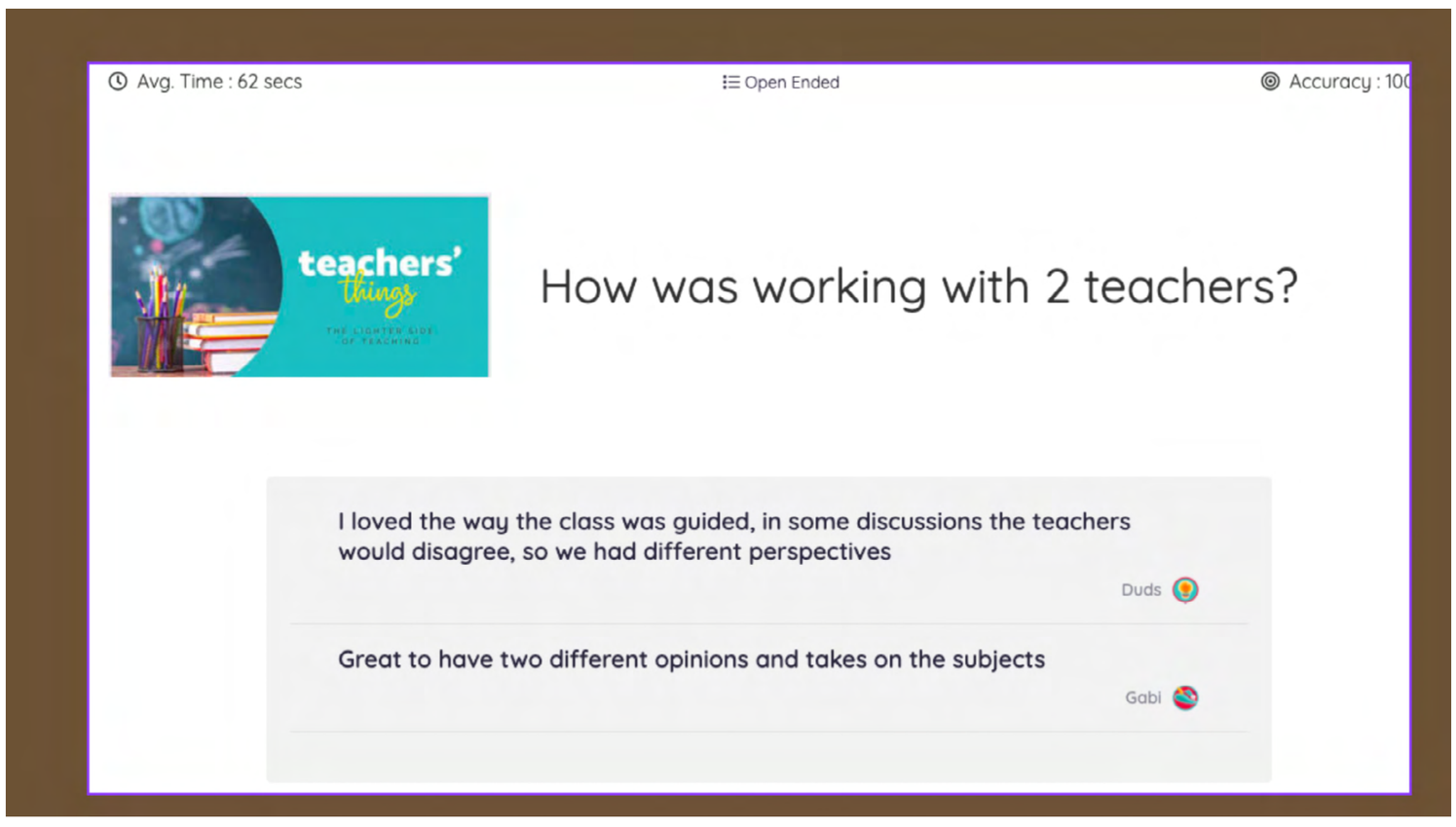
We believe that this collaborative dynamic challenges hierarchical assumptions sometimes present in EME contexts, where language specialists are positioned as remedial auxiliaries

rather than epistemic partners (Airey, 2012; Freitas et al.[52], in this volume). Instead, our model aligns with integrative perspectives in ICLHE that advocate for co-construction of learning environments (Dafouz & Smit, 2020).

From the language perspective, engaging deeply with ethical content required moving beyond lexical or grammatical concerns toward discourse-level facilitation. From the ethics perspective, adopting English as the medium necessitated attention to clarity, accessibility, and rhetorical scaffolding. The partnership thus generated mutual professional growth and expanded pedagogical repertoires on both sides.

More broadly, these experiences suggest that integrating ethics and language through EME can serve as a powerful model for interdisciplinary collaboration. When language is understood as constitutive of knowledge production rather than ancillary to it, language educators become strategic actors in shaping professional identity formation within health sciences education.

Figure 4. Course Assessment Quiz-1.



Concluding Reflections: What Does Ethics through EME Teach Us about Internationalization and Health Education?

In contemporary health sciences education, professional competence entails the ability to deliberate across disciplinary, cultural, and linguistic boundaries. Ethical challenges in global health — whether related to distributive justice, human rights, technological innovation, or public health policy — increasingly unfold in international arenas where English operates as a shared medium of communication. In this sense, the seminars described here contribute directly to the goals of the 2030 Agenda (United Nations, 2015). By cultivating critical moral reasoning and respect for divergent perspectives, they align with SDG 4 (Quality Education), which emphasizes inclusive and equitable learning environments. By engaging with themes of

52 Reframing Language Teachers' Roles in ICLHE from a Course on Interculturality in Healthcare.

justice, discrimination, human dignity, and professional responsibility, they resonate with SDG 3 (Good Health and Well-being) and SDG 16 (Peace, Justice and Strong Institutions). Ethical literacy, when practiced dialogically and internationally, becomes part of responsible professional citizenship.

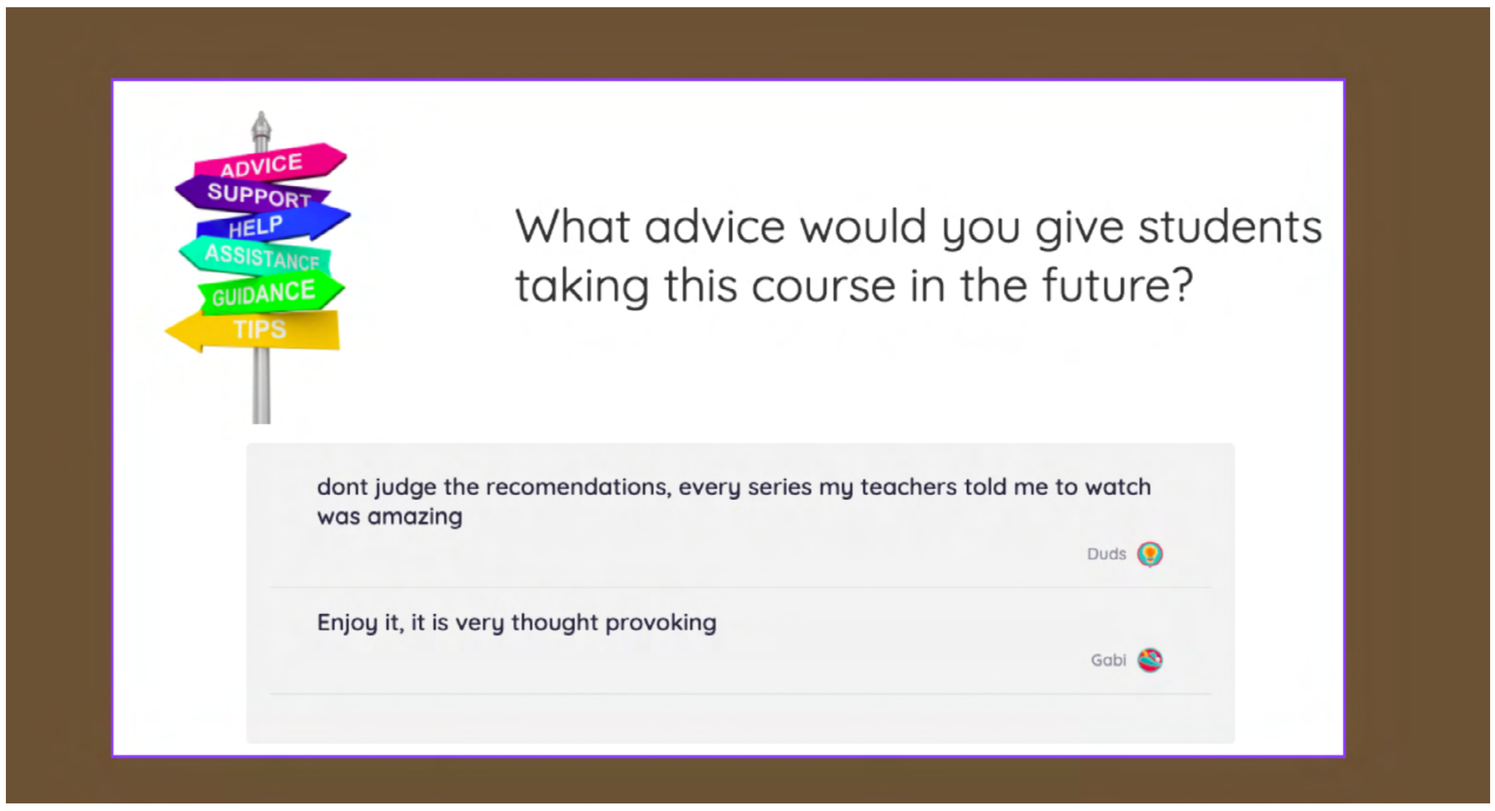
From an institutional perspective, these experiences also reflect a broader movement toward the internationalization of higher education. As scholarship has emphasized, EME is not simply about language choice, but about the transformation of pedagogical practices, institutional cultures, and epistemic participation (Dafouz & Smit, 2020). By integrating ethics and English in a structured and dialogical manner, UFCSPA positioned itself within this broader transformation, demonstrating that internationalization at home can be enacted through curriculum design rather than solely through physical mobility programs.

Ultimately, our experience suggests that ethics education through EME has the potential to serve as a laboratory for global professional formation.

In our seminars, deliberating about morally complex issues involved more than rehearsing language skills; it provided opportunities for students to participate in the kinds of dialogical practices characteristic of international academic and professional communities. These experiences suggest that such pedagogical designs may contribute to the development of ethically engaged interlocutors capable of participating in contexts where moral deliberation increasingly transcends linguistic and national borders.

Figure 5. Course Assessment Quiz-2.

Figure 6. Course Assessment Quiz-3.



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26. Talks About Healthcare Software: Biomedical Informatics through English as a Medium of Education (EME)

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Abstract: This chapter reports on the design and implementation of *Talks About Healthcare Software*, a postgraduate-level course offered at a Brazilian health sciences university. Developed within the Graduate Program in Information Technology and Healthcare Management, the course explores the role of software systems in healthcare while integrating disciplinary learning with English-Medium Education (EME). Grounded in the United Nations 2030 Agenda, particularly SDG 3 (Good Health and Well-Being) and SDG 4 (Quality Education), the course encourages critical reflection on technology adoption, digital inclusion, innovation, and equity in healthcare. Topics include artificial intelligence, telehealth, robotics, augmented and virtual reality, brain-computer interfaces, data privacy, and public health applications. Conducted through active and collaborative methodologies, the course combines critical discussion of international literature, authentic tasks, peer feedback, and a final symposium in which students propose technology-based solutions to local healthcare challenges. Over time, the course evolved from an on-site to an online format, expanding opportunities for international participation and intercultural dialogue. The experience suggests that integrating Biomedical Informatics and English-medium education can strengthen academic internationalization at home, foster critical digital literacy, and prepare healthcare professionals to engage responsibly with emerging technologies in global and local contexts.

Keywords: Biomedical Informatics, English-Medium Education, Healthcare Software, Internationalization at Home, Digital Health.

Introduction

Recognizing the growing relevance of software systems to healthcare, we launched a course in 2019 focused on examining healthcare software in the Graduate Program on Information Technology and Healthcare Management at the Federal University of Health Sciences of Porto Alegre (UFCSPA) and have offered it in repeated editions ever since. The course adopts English-Medium Education (EME), understood here as using English as the primary language for teaching and learning, while acknowledging multilingual practices that support disciplinary knowledge construction. We use the term *EME* rather than *English-Medium Instruction (EMI)* to emphasize education as a broader pedagogical process extending beyond language choice as the medium of instruction (Dafouz & Smit, 2020; Lasagabaster, 2022). *Talks About Healthcare Software* (hereafter *Talks*) explores real-world uses of health software and invites students to reflect on adoption and design choices—how to select systems responsibly, expand digital and knowledge inclusion, and stimulate innovation. The participating students are Master's and PhD students in the field of biomedical informatics. No prerequisites are required for enrollment. Applicants are asked to self-declare sufficient communicative competence to participate actively in class discussions and produce academic abstracts in English. Based on our observations as course instructors, most participants appear to have English proficiency roughly equivalent to the B1 level of the Common European Framework of Reference for Languages (CEFR) (Council of Europe, 2001), although no formal language assessment is required for admission.

Anchored in the United Nations 2030 Agenda—particularly SDG [53] 3 (Good Health and Well-Being) and SDG 4 (Quality Education)—*Talks* encourages sustained reflection on digital inequalities and their implications for care delivery. Its overarching aim is to enable substantive discussion of key issues in health software, with attention to students' professional domains, while cultivating critical thinking and systematic, constructive peer feedback on learning tasks. More specifically, the course develops knowledge of concepts, applications, and validation processes for health-related software. To that end, it addresses inclusion, mobile software, ambient intelligence, augmented/virtual reality, and robotics, and it also provides structured opportunities to use the English language for reading, writing abstracts, and participating in in-class discussions.

While enhancing the English literacy of our graduate community is central - contributing to internationalization at home at UFCSPA - we are especially interested in the kinship between the course topic and its medium of instruction. English, after all, became the *lingua franca* of Biomedical Informatics due to historical, technological, and institutional forces that shaped the field globally (Aldousari & Kithinji, 2024; Goron & Chereches, 2025). By adopting EME, the course aligns with this notion of field-oriented international communication.

Throughout the course, learners engage with diverse scenarios and participate in critical debates about technology use, system selection, equity, and innovation, balancing clinical value, usability, ethics, and access. Core topics include data security and privacy; artificial intelligence; robotics; telehealth; brain–computer interfaces; AR/VR; contact-tracing apps (with lessons from COVID-19); and serious games for public health communication. By analyzing these systems through English-medium tasks, students develop the terminology and discourse strategies necessary to collaborate across borders, evaluate evidence, and make responsible technology choices.

Another crucial aspect of our teaching trajectory is that although Talks began as an on-site course, the COVID-19 pandemic prompted us to redesign it in an online format. In practice, it was in this modality that the course reached its full interactive potential. The dynamics of online sessions enabled participation from students in different locations and allowed guest contributors from Brazil and abroad to join us. For example, Dr. Thaís Russomano[54] and MSc Marcos Vinícius Ambrosini Mendonça[55] shared perspectives from their work in telehealth, enriching discussions

53 https://sdgs.un.org/goals

54 Dr. Thaís Russomano is a Brazilian doctor and scientific researcher specialising in space medicine, space physiology, biomedical engineering, telemedicine and telehealth. She founded the Microgravity Centre (MicroG) at PUCRS university, Porto Alegre, Brazil, in 1999, coordinating it for 18 years until 2017. The MicroG is the first educational and research centre in Space Life Sciences in Latin America. She is a senior lecturer at King's College London, lecturing in Aviation and Space related courses; coordinator of the Space Network (Rede Espaço),[1] University of Lisbon; guest lecturer at Aalto University, Finland in Space and Design;[2] guest lecturer at Pfarrkirchen Institute of Technology, European Campus, contributing to the MSc in Medical Informatics; consultant for the Skolkovo Foundation; member of the Mars One Advisory Board;[3] International Relations Director for the UK-based HuSCO, Human Spaceflight Capitalization Office; and director of two private companies linked to space life sciences and telehealth – InnovaSpace[4] Consultancy (UK) and International Space Medicine Consortium (USA) (https://en.wikipedia.org/wiki/Thais_Russomano) / http://lattes.cnpq.br/2574931295133958

55 Dr. Marcos Vinícius Ambrosini Mendonça (MSs) is a Family and Community Physician. He earned his medical degree from the Federal University of Health Sciences of Porto Alegre (UFCSPA) and completed medical residencies in Family and Community Medicine and Health Administration at the Hospital de Clínicas de Porto Alegre (HCPA). He works in both clinical practice and the development of digital health technologies and received a Master's degree in the Graduate Program in Information Technology and Healthcare Management at UFCSPA.

on how technological advances and software choices have shaped medical research and healthcare delivery across different contexts. Such exchanges brought authentic disciplinary perspectives into the classroom while exposing students to the international and collaborative nature of Biomedical Informatics. With the aid of such practices, by the end of the 45-hour discipline, students gather tools to identify technological solutions that can improve quality of life in local communities, demonstrate inclusive and patient-centered reasoning about digital tools, and contribute to interdisciplinary teams working toward safer, fairer, and more effective healthcare. At the same time, sustained engagement with disciplinary communication in English equips students to navigate the English-mediated communication practices of the international Biomedical Informatics community, enabling them to participate more confidently in academic and professional exchanges while contributing to interdisciplinary teams working toward safer, fairer, and more effective healthcare.

How We Have Been Working to Reach *Talks'* Goals

To reach the course goals outlined above, we adopt student-centered activities informed by our combined expertise in biomedical informatics, software development, English studies, and academic writing, along with a shared commitment to active methodology–centered approaches. Varying the resources adopted has proved essential for promoting a sense of movement and engagement. To that end, we incorporate tools such as those shown in Figure 1 to address students' different learning preferences and reduce cognitive fatigue, preventing monotony and overload. We also integrate active learning strategies—including PechaKucha, Think-Pair-Share, and other debate-oriented routines—to stimulate discussion around videos or readings selected as input. Resource variation, as we see it, also enhances accessibility by offering alternatives for students with distinct needs, time constraints, internet limitations, or accessibility requirements (Jamil & Geada, 2022). Moreover, interactive and collaborative tools foster social presence and community building, counteracting the isolation often associated with online learning.

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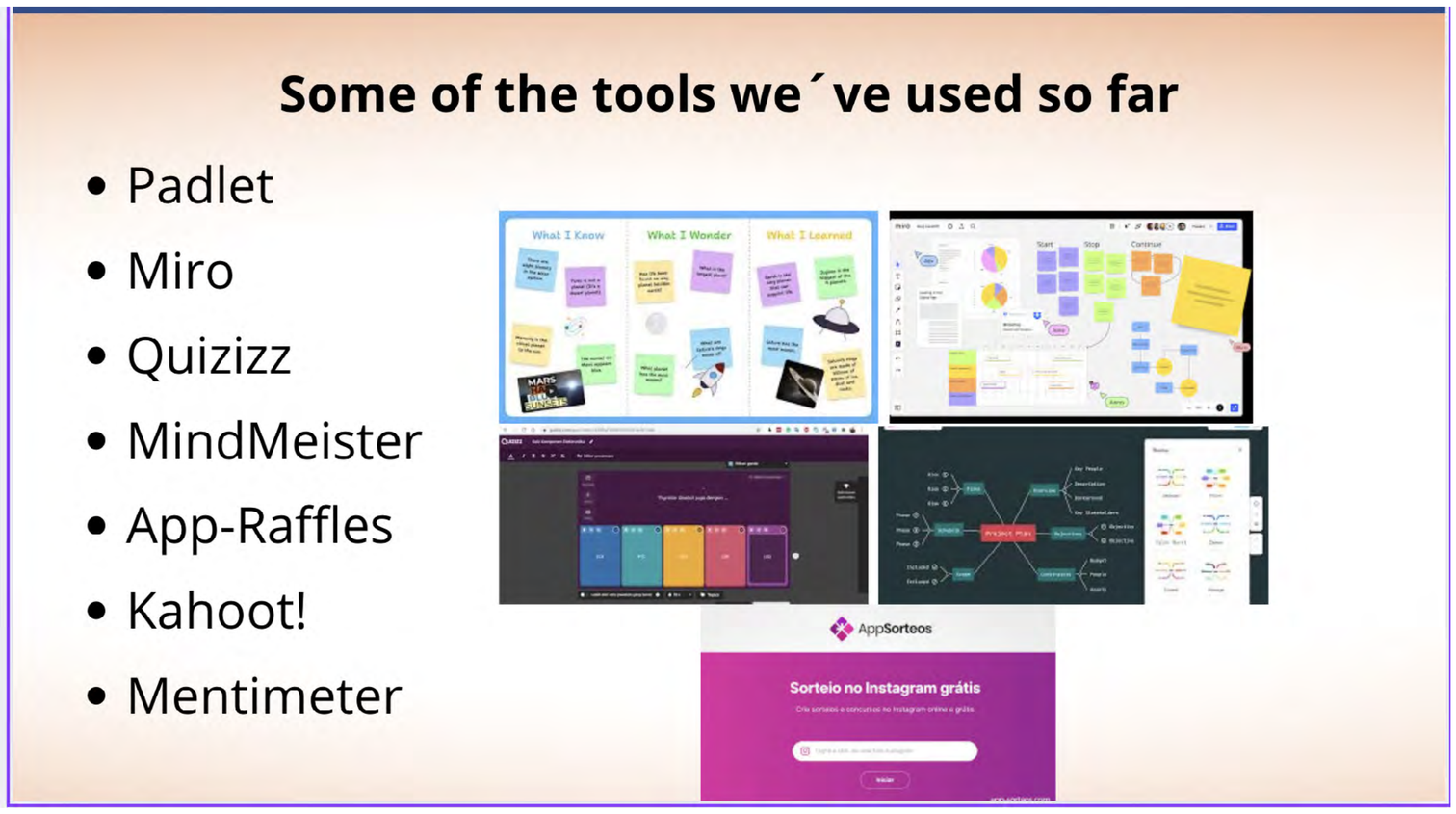
Figure 1. Digital tools to support active learning and varied modes of student participation.



Furthermore, incorporating a range of authentic task types from academic, social, and professional domains — such as those shown in Figures 2 and 3 — supports autonomy and self-directed learning by enabling students to engage with materials in ways that best suit their contexts, such as experimenting with augmented reality to reflect on how it can transform healthcare, mapping about where the members of our community are based or accounting for their course learning perceptions.

Figure 2. Examples of synchronous class activities.

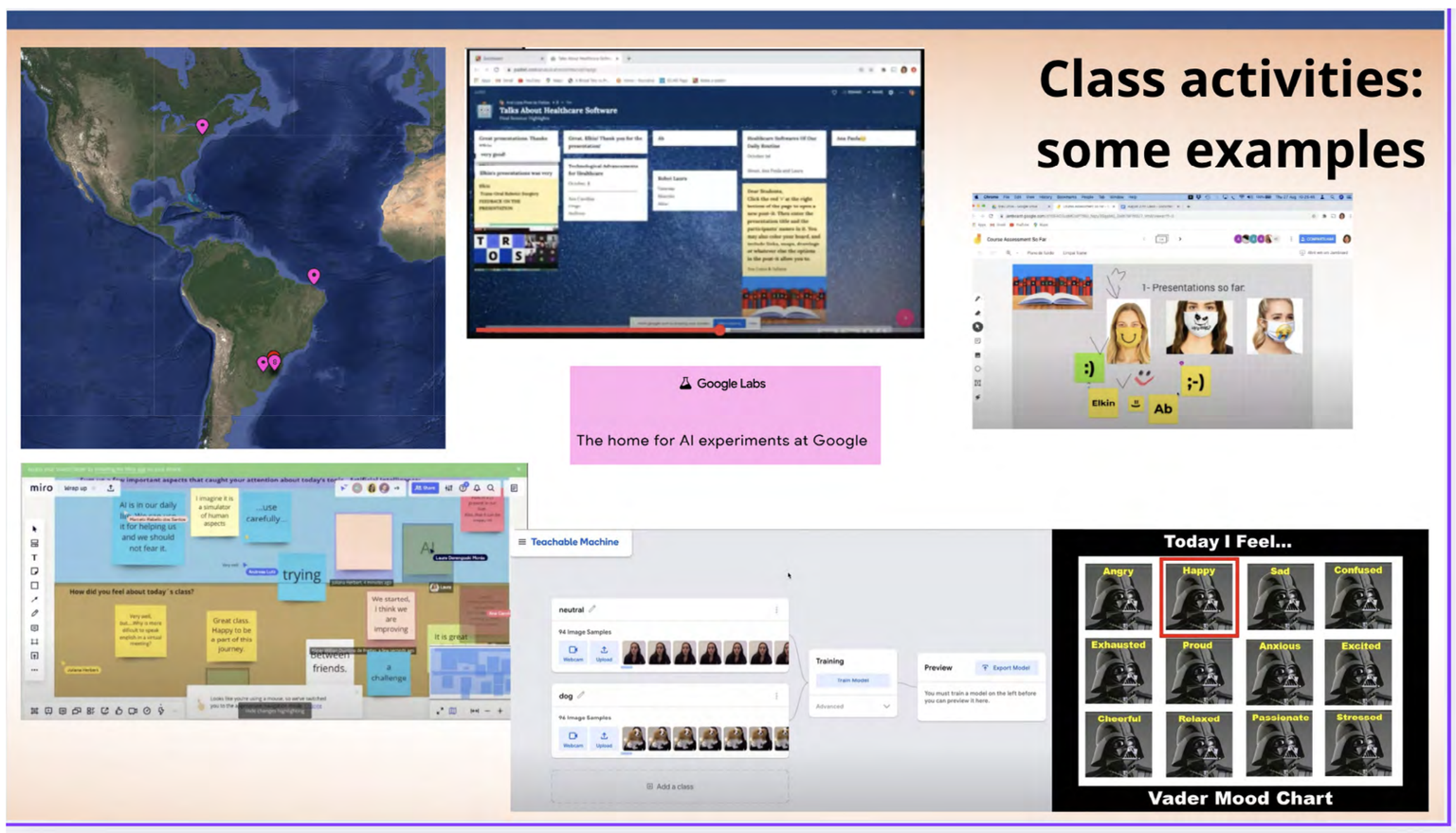
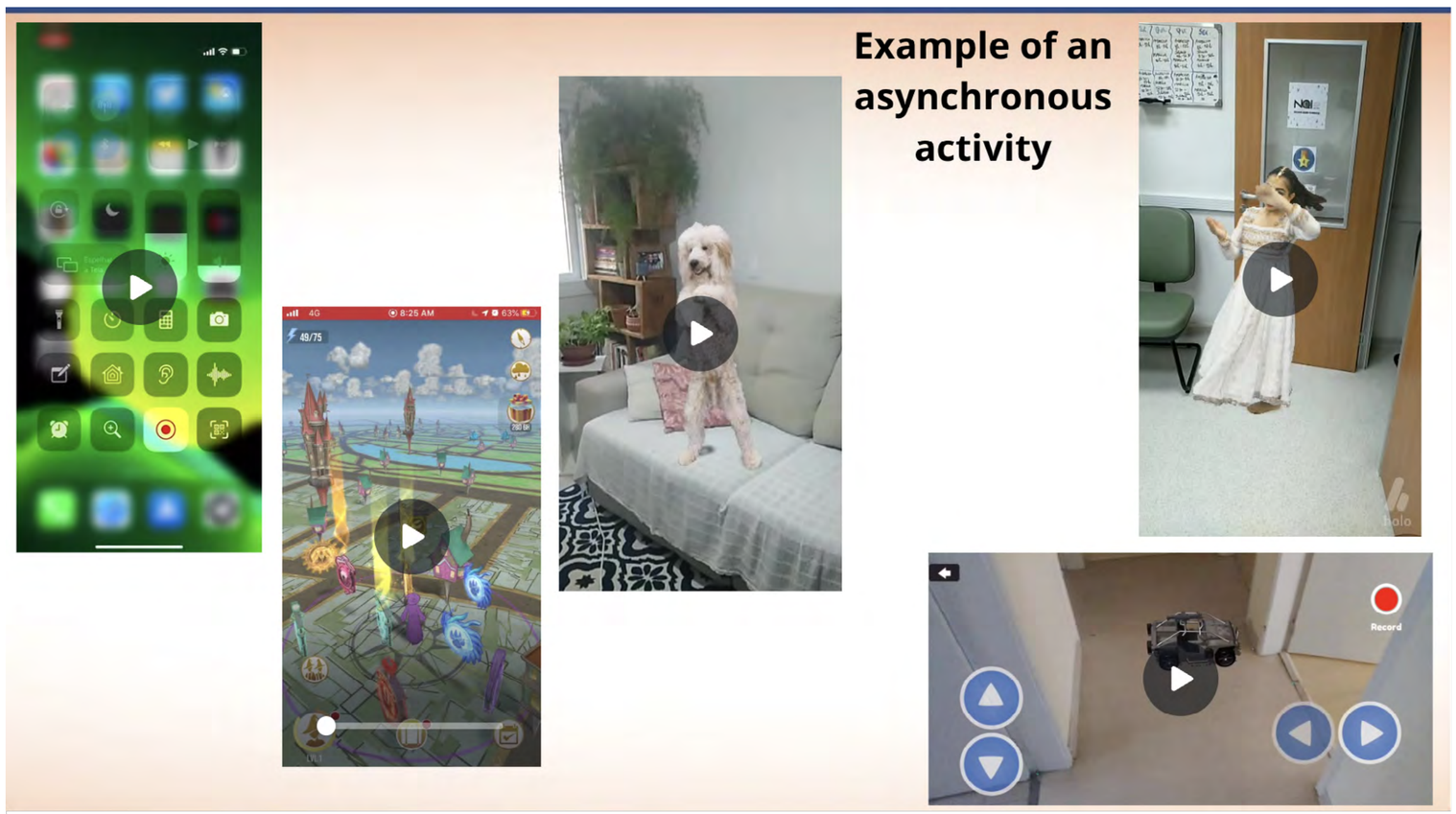
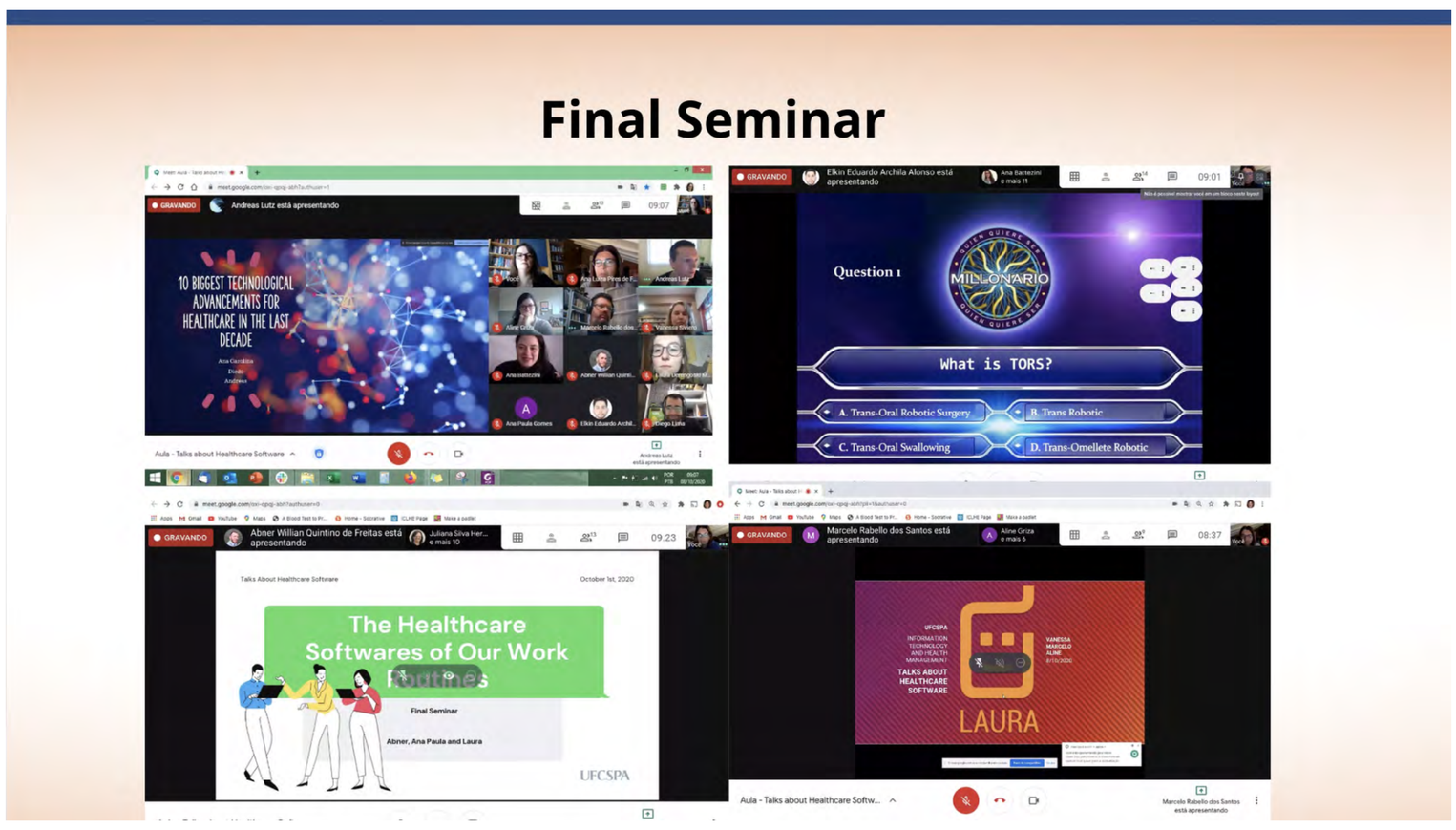


Figure 3. Example of an asynchronous augmented-reality activity.



Finally, Figure 4 illustrates our course's concluding task. Talks culminates in communication assignments that translate technical insights into actionable messages, so the final symposium is guided by the SDGs, and aims to envision solutions for improving community health through the use of applied technology. For this activity, participants work in pairs to research and present a technological solution applied to healthcare, highlighting how such an innovation could be adapted to local needs and identifying the SDG addressed. In addition to promoting collaborative work — a defining feature of contemporary health teams — we also stimulate research on software applications with potential for local impact. Group feedback is fostered to support critical discussions about the feasibility and relevance of the technological improvements shared. We should note that several of our participants already work in hospitals or private practices, either as health managers or as professionals in direct contact with the public (for example, physicians), and they often connect their final assignments to their thesis or dissertation projects.

Figure 4. Course concluding tasks.

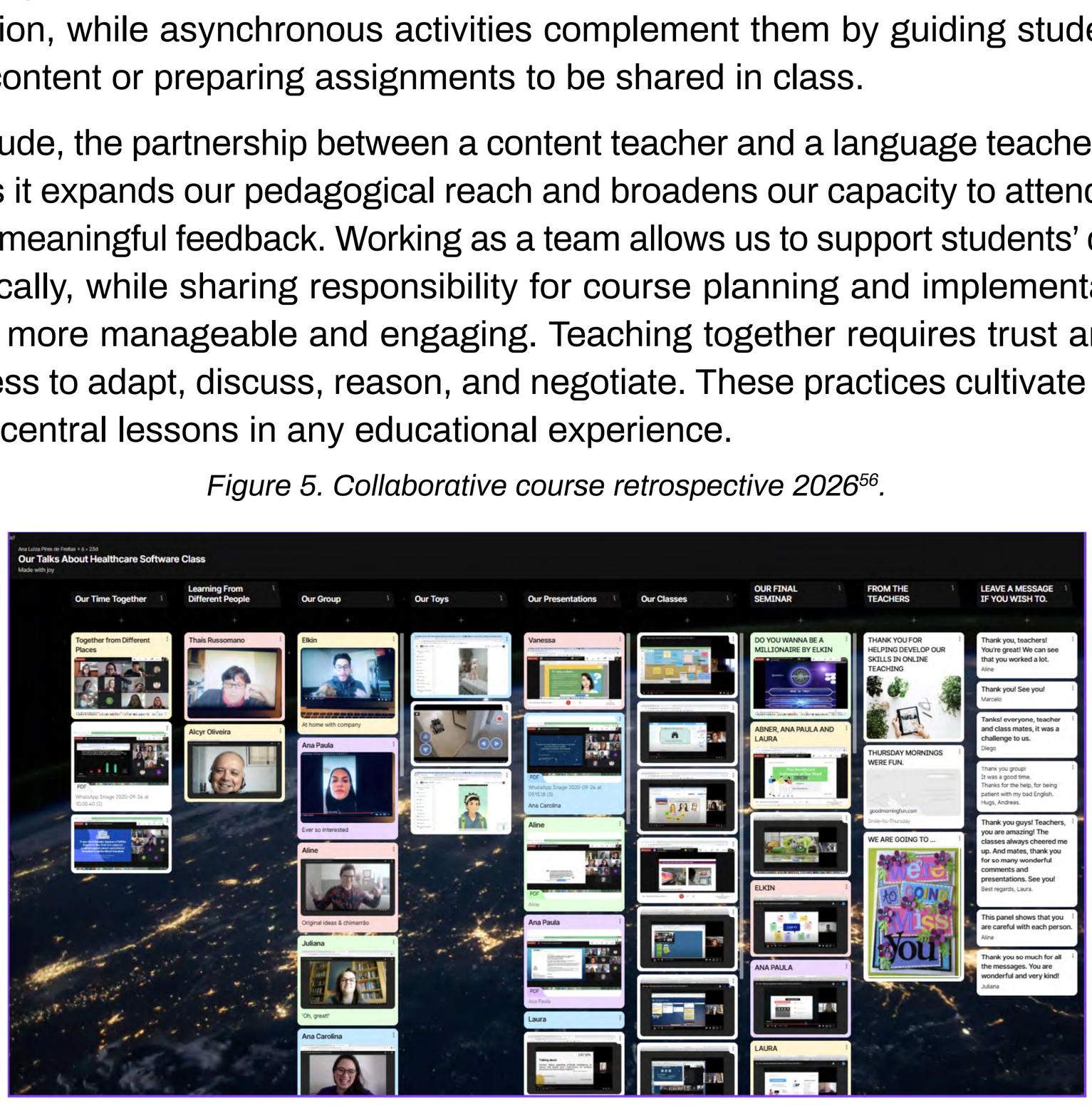


Some Lessons We Have Learned Through *Talks*

Online classes certainly bring certain challenges, but they have become a compelling option for expanding opportunities for inclusion—both for students and for guest participants who can join us from different locations. The online format also creates a productive feedback loop: we model the very technological practices we expect students to adopt when engaging with software applications, emphasizing thoughtful, user-friendly choices that enhance learning. In this context, synchronous classes with interactive activities are crucial for promoting discussion and interaction, while asynchronous activities complement them by guiding students through theoretical content or preparing assignments to be shared in class.

To conclude, the partnership between a content teacher and a language teacher has proved essential, as it expands our pedagogical reach and broadens our capacity to attend to students and provide meaningful feedback. Working as a team allows us to support students' development more holistically, while sharing responsibility for course planning and implementation makes the process more manageable and engaging. Teaching together requires trust and flexibility: the willingness to adapt, discuss, reason, and negotiate. These practices cultivate humility and openness—central lessons in any educational experience.

Figure 5. Collaborative course retrospective 2026[56].



Implications for English-Medium Education

The Talks experience suggests that English-Medium Education is particularly effective when English is not introduced as an external requirement but emerges naturally from the communicative practices of a discipline. In Biomedical Informatics, where research, technological innovation, and international collaboration are largely conducted through English, EME creates opportunities for students to engage simultaneously with disciplinary knowledge and authentic

56 https://padlet.com/analuizaf/our-talks-about-healthcare-software-class-du1hd9x00xd9foof

academic communication. We believe that this principle extends beyond our context. Other initiatives integrating content and language in higher education may likewise benefit from aligning language use with the epistemic and professional practices of their disciplines, fostering meaningful integration of content, communication, and international engagement.

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27. Integrating Content and Language Learning into Healthcare Education: An Experience Report of an Artificial Intelligence

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Abstract: The growing importance of international collaboration and artificial intelligence (AI) in clinical practice requires educational approaches that integrate disciplinary knowledge with English language development. This paper reports a content and language integrated learning (CLIL) initiative implemented in a postgraduate elective course on artificial intelligence applied to healthcare at a Brazilian university. The course was collaboratively designed and delivered by one artificial intelligence specialist and two English language specialists through a team-teaching approach. Students engaged with theoretical discussions on AI and healthcare, explored the Expert SINTA knowledge-based system, and developed expert systems to address authentic healthcare problems. The learning process required students to translate clinical reasoning into explicit computational rules while simultaneously developing English for academic and professional purposes. Students also presented their projects orally and produced reflective reports in English, receiving integrated feedback from content and language instructors. The experience demonstrated that combining AI education with language learning fostered authentic problem-solving, critical thinking, interdisciplinary collaboration, academic literacy, and communication skills for international scientific contexts, resulting in students publishing in academic journals. Team teaching provided complementary expertise, strengthened pedagogical support, and promoted collaboration among lecturers across disciplines. This experience suggests that integrating content and language learning through authentic AI-based tasks represents a promising strategy for preparing healthcare professionals to participate in global scientific communities while developing both technical and communicative competencies.

Keywords: Content and Language Integrated Learning (CLIL), Artificial Intelligence, Healthcare Education, Team Teaching, English for Academic Purposes, Expert Systems.

Introduction

National curriculum guidelines for undergraduate health courses in Brazil, such as Medicine, recommend that students demonstrate proficiency in at least one additional language. Given that English is a lingua franca in the Health Sciences and that more than 90% of scientific publications in the natural sciences are in English (Hamel, 2013), offering students opportunities to learn English seems highly desirable. However, Brazilian legislation designates Portuguese as the official language of higher education, meaning instruction in core courses should be in Portuguese. Therefore, instruction in higher education institutions is primarily conducted in Portuguese to comply with national law. At the curricular level, this restricts the systematic incorporation of other languages in course delivery, except as elective subjects.

Studying English or other languages alongside an undergraduate course in health sciences remains a challenge for many students, as their curricula are high in workload. With limited free time, students opt for elective/optional courses that cover cutting-edge or trend-focused topics in their field rather than elective language-driven courses. In this scenario, one potential strategy to embed English language instruction in the curriculum is to offer elective courses that integrate content and language across elective disciplines.

While content-and-language-integrated courses can be a helpful strategy for students, they can pose a challenge for universities. On the one hand, professors may have low self-efficacy in teaching their subjects in a second language (Tsui, 2018) and may avoid offering these courses. On the other hand, they may assume that language proficiency is sufficient for teaching in this scenario (Furstenberg & Kletzenbauer, 2015) and offer little language support to students, as they see themselves as content lecturers. In fact, Curle et al. (2020) emphasize that content-and-language-integrated lecturers need to address linguistic, pedagogical, and intercultural challenges when teaching in this context.

In terms of language, lecturers must be aware of the subject-specific features of English and of classroom language (giving instructions, providing feedback, paraphrasing, signposting, etc.). Managing L1 in the classroom and translanguaging (bilingual or multilingual practice), addressing students' linguistic challenges, and providing the necessary language support are also part of the content lecturer's language challenges (Curle et al., 2020; Furstenberg & Kletzenbauer, 2015). Bjorkman (2011) also highlights that lecturers should adjust their expectations and assessment criteria depending on the kind of discourse they are evaluating; for instance, we should not apply written norms to assess spoken discourse.

In a classroom with diverse language backgrounds, one of the pedagogical skills needed is scaffolding. Scaffolding can be provided by lecturers as they build on a student's existing knowledge and interests, repackage information, break material into smaller chunks, respond to different learning styles, and foster creative and critical thinking (Mehisto et al., 2008). Peers can also provide each other with scaffolding; therefore, devising student-centered activities is another pedagogical skill that content-and-language-integrated lecturers need.

Being aware of cultural bias in communication and using strategies for successful communication are intercultural skills also required of content-and-language-integrated lecturers. In fact, lecturers not only need to have these skills but also need to know how to promote and assess the development of these abilities in students who will interact with different discourse communities. Bjorkman (2011) states the need to assign dialogic tasks to assess students' abilities to negotiate meaning and achieve successful communication.

Investing in pedagogical development in content-and-language integration is one way to address these challenges. However, despite universities' incentives for this integration, there is a lack of pre- and in-service courses to help lecturers address this new challenge (Doiz et al., 2013; Dearden, 2014). According to Lasagabaster (2018), one of the main concerns preventing lecturers from adopting this integration is a perceived lack of institutional support and an excessive teaching load.

Another way to address these challenges is to promote team teaching, in this case, teaming a content lecturer and a language lecturer. According to Baeten and Simons (2014), team teaching can help address two main sources of dissatisfaction among lecturers: feelings of loneliness and a lack of support. Research evidence suggests that team teaching promotes

lecturers' reflection on pedagogical practices (Baetens, Simon, 2014; Lester, Evans, 2009) and can stimulate classroom innovation.

Students also benefit from team-teaching courses (Carpenter II et al., 2007) as they perceive greater support and individual attention. Lasagabaster (2018) argues that team teaching tends to improve feedback to students on written and oral work, as lecturers negotiate feedback and each lecturer focuses on different aspects.

The objective of this article is to present a content and language integrated collaborative experience in which an artificial intelligence specialist and two language experts teamed up to offer a postgraduate elective course on artificial intelligence applied to healthcare.

Content and Language Integrated Experience on Artificial Intelligence Applied to Healthcare

The rapid expansion of scientific knowledge poses challenges to the continuous and ongoing professional development of healthcare professionals, making evidence-based decision-making essential in clinical practice. The incorporation of technologies such as clinical decision support systems and artificial intelligence-based systems expands the possibilities for therapeutic personalization and risk management. Among the artificial intelligence-based systems are Expert Systems, that is, knowledge-based systems that possess a knowledge base and an inference engine to act upon specialized knowledge.

Expert SINTA (https://dc.ufc.br/pt/infraestrutura/lia/) is an environment for designing expert systems developed in Brazil for academic and educational purposes, focusing on building knowledge-based applications. It is an environment that enables modeling problems using production rules and an inference engine, simulating human reasoning processes in specific domains. According to Spirandelli et al. (2011), Expert SINTA stands out as a pedagogical tool for teaching Artificial Intelligence, as it allows students to understand the concepts of knowledge representation and automated reasoning practically. In addition, its graphical interface facilitates visualization of the inference process, making it accessible for classroom use and research projects.

In the health field, Expert SINTA can be applied to systems that support medical diagnosis, for example, by identifying symptoms and suggesting possible diseases based on rules previously defined by experts. Another example is its use in clinical triage protocols, where the system can assist professionals in deciding on referrals or additional exams based on patient-provided data. It can also be used for treatment monitoring, offering recommendations to adjust therapeutic approaches based on clinical parameters.

Given its potential for health decision-making, we offered an elective 45- hour-course titled "Artificial Intelligence and Health: Theory and Applications" to graduate students at Universidade Federal de Ciências da Saúde de Porto Alegre (UFCSPA). In the first part of the course, we

discussed the potential and limitations of artificial intelligence and language models in health sciences. These discussions drew on perspectives from three different areas: artificial intelligence; linguistics and health sciences.

After these theoretical discussions, students were encouraged to engage with Expert SINTA by accurately entering a variety of clinical data into the user interface. A key pedagogical feature of SINTA is its dynamic interface generation: based on the data entered, the system automatically creates relevant menus and screens, effectively simulating a real-world clinical decision-making environment. This high-fidelity simulation not only reinforces diagnostic and therapeutic knowledge but also, crucially, exposes students to the structured, precise terminology and vocabulary of international science language relevant to healthcare, thereby preparing them for global professional practice. In all cases, the methodology involved diagnosing knowledge gaps, developing explicit rules for SINTA's base, and applying them to specific healthcare scenarios to aid other professionals in making reliable, evidence-based decisions on the best treatment.

Throughout this process, students recognized the complexity and depth of their own knowledge as they translated it into explicit rules for expert systems. This "rule-making" process is a profound linguistic and logical exercise, especially when performed in an additional language. When a student defines an "if-then" rule in SINTA, they face the gaps in their own clinical reasoning. They must clarify their understanding of healthcare logic: *If* variable A is present and variable B exceeds a certain threshold, *then* diagnosis C is the logical conclusion. This level of precision requires a deep engagement with the content. It forces the student to act as a "knowledge engineer," creating a transparent model of their own thought process, not only in health but also in our discipline, in English as an additional language.

A postgraduate medical student used the SINTA Expert System to address the clinical problem of selecting optimal transcatheter aortic valve prostheses. This procedure (TAVI) requires consideration of intricate anatomical variables, such as the aortic annulus diameter, degree of calcification, and the patient's comorbidities. Using English-language literature as his primary source, the student modeled these variables into SINTA. This process required him to master English cardiovascular terminology while simultaneously engineering a logical system capable of recommending the most appropriate prosthesis with the precision of a veteran cardiologist.

A postgraduate student in nutrition applied the framework to develop an expert system for diagnosing adiposity patterns. Previously, in the same discipline, other nutrition postgraduate students applied the SINTA Expert System Interface to translate complex nutritional assessments - including body mass index (BMI), waist-to-hip ratios, and metabolic indicators - into a standardized AI framework. Their learning experience demonstrated that an expert system could minimize diagnostic variability and provide consistent, evidence-based management of obesity-related health risks (Marmett et al., 2018).

In the last part of the course, students were encouraged to share their SINTA Expert System application processes in English oral presentations to receive feedback from their peers and

professors (AI experts and English experts). Students were also encouraged to write a reflexive report in English on their learning experience of applying the SINTA Expert System Interface to specific healthcare scenarios to aid other professionals in making reliable, evidence-based decisions.

The oral presentations and the report, on the other hand, provided them with the chance to expand their linguistic repertoire not only regarding AI (and, more specifically, the language of the SINTA Expert System Interface) but also their academic literacy.

Discussion

Ever-changing technologies and ever-growing scientific literature demand that health professionals continually invest in their development to address current, increasingly complex decisions. The COVID-19 pandemic also highlighted the importance of international collaboration in addressing health emergencies and other global health challenges. Integrating learning about new technologies (AI) and language learning creates a synergistic effect that significantly enriches health education.

Traditional methods often treat language and technical skills as separate tracks; however, in active methodologies, they are inextricably linked. In our CLIL course, the proposed activities mirrored real clinical demands. Students were not working on abstract scenarios; they were building tools that addressed real-world challenges. AI integration via SINTA promoted authentic problem-solving experiences, fostering critical thinking and innovation.

Working in groups fostered collaboration and critical thinking among students with diverse knowledge backgrounds and from different countries. It also helped students prepare for multicultural clinical and research environments by engaging with current research in English. By combining AI-driven logical modeling with reporting their work in an additional language, students develop a powerful synthesis of professional “hard skills” - such as knowledge engineering, data management, and clinical diagnostics - alongside essential “global soft skills.” These include the ability to navigate diverse discourse communities, participate in international peer-review processes, and communicate complex technical data with linguistic adequacy and cultural competence.

As students prepared oral presentations and scientific reports, they also had the opportunity to engage with authentic academic settings. Providing students with opportunities to develop oral communication skills is essential for scaffolding their participation in a broader international community and facilitating their career development. As we move further into the 21st century, the ability to manage AI and communicate in English will be the hallmarks of leadership in the global scientific community.

The integration of content and language is a promising educational approach for fostering innovation and securing international participation in the future of healthcare. In this course, students were not just consumers of technology; they were creators of clinical reasoning. They

were not just readers of research; they became contributors to the global scientific dialogue. It was the pairing of a content lecturer (AI expert) with language experts in this course that enabled students to feel confident enough to become knowledge producers by the end. Some of them presented their work at scientific events, and some even published their articles.

As lecturers, we learned more about each other's fields by discussing natural and artificial language processing. We also learned about each other's field strategies and expectations for oral presentations and written productions. Content and language integration empowered both lecturers and students.

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28. Quantum Coaches: Training the International Physicists' Tournament Team of Unicamp

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Abstract: This paper presents a report on an ongoing experience held in Unicamp (Universidade Estadual de Campinas), Brazil, at the Gleb Wataghin Institute of Physics (IFGW) in which English is used as a medium of instruction. The 4 hours/week elective course focuses on the preparation and training of the Quantum Coaches, the Unicamp team for the International Physicists' Tournament (IPT), an annual academic competition for undergraduate and master students held entirely in English. During the preparatory course students find, filter, read, and discuss relevant bibliography, as well as design and perform experiments, propose explanatory models, and present their findings orally. The whole process is held in English, which helps students improve their language skills in a purpose-driven and authentic atmosphere.

Keywords: Physics, Higher Education, EMI.

Introduction

Brazilian higher education (HE) in Physics faces a conflict between its current reality and the field's expectations. Among a myriad of issues, we point out two.

First, there is an increasing demand for the collectivization of research both nationally and internationally. Most professional physicists are required to work in groups, write projects, and communicate their results through written products, as well as oral presentations at scientific events. As in any scientific field, written and oral communication play a significant role in the work of physicists. Nonetheless, instruction in the area remains focused on individual work, and Physics students receive little to no training in soft skills. During undergraduate theoretical Physics courses, students are mostly required to develop their mathematical abilities, their knowledge of Physics phenomena, and to apply both to solve textbook Physics problems. Classes are often lectures in which the professor presents the content, while students passively listen and take notes. Although students are sometimes given time to ask questions, this alone does not make the class dialogical or active, since interaction remains limited and usually occurs within a teacher-centered structure in which students mainly seek clarification about content already presented by the professor. Assessment is primarily conducted at specific times using lists of textbook problems and written tests (which are also lists of problems) for students to solve. The perspective grounding this assessment is primarily summative and classification-oriented, rather than formative (Black & Wiliam, 1998), i.e., based on continuous diagnosis to help students and educators promptly adapt their actions and improve learning.

Second, despite the fact that English has become the main language of science, HE in Brazil is offered almost exclusively in Portuguese. There is still debate in Brazilian universities about whether teaching in English promotes social exclusion or inclusion. On the one hand, it may be an exclusion factor for students who did not have access to adequate English courses prior to admission or during their undergraduate studies (Gimenez et al, 2024). On the other hand, exposure to tasks conducted in English promotes learning and improves the chances of accessing higher income jobs in a professional context (Baumvol & Sarmento, 2019). In some

universities, including the University of Campinas[57] (Unicamp), where the experience discussed in this article is situated, there are sparse initiatives to promote the use of English as a Medium of Instruction (EMI) both in undergraduate and graduate levels[58]. In 2019, only a handful of undergraduate courses were offered in English. In the first semester of 2026, Unicamp offered only 15 undergraduate and graduate courses using EMI, mostly in the STEM (DERI Unicamp, 2025).

While Physics in the early 20th century had relevant publications in several European languages, especially German and French, English has been consolidated as the *de facto* common language for Physicists since the end of the Second World War. The notable exception being works published in Russian by the Soviet Union. Nevertheless, Soviet textbooks and journals had easily accessible English versions in a timely manner (Furry et al., 1960, p. 32-34). In the 21st century, English is ubiquitous and even emerging scientific powers such as China adopt it as the language of their nationally edited scientific publications (Chinese Physics Letters, n.d.).

The undergraduate Physics curriculum in Brazilian universities usually does not give students the opportunity to learn how to express themselves scientifically in English (not even in Portuguese). In Brazil, STEM programs lack courses or activities where the students are required to express themselves either orally or through written text, with the exception of experimental courses where students produce guided lab reports. The student performance is evaluated almost exclusively through tests where solving equations is the only required skill. Students end their undergraduate education with little contact with different genres of expression. As far as English is concerned, the bibliography in the so-called professional cycle, which starts after all basic calculus and Physics courses are completed, used to be mainly in English in the past. At present, the most commonly used textbooks have been translated into Portuguese, leaving the need to read in English restricted to students engaged in undergraduate research internships, during which they might be required to read research papers. Thus, in this context, EMI has been understood both as a response to the limited opportunities Brazilian students have to engage with Physics through English and as a way to support the development of their scientific communication skills in the language.

Having these factors in mind, in this paper we report on an ongoing project that simultaneously tackles both issues by combining EMI and active learning in the context of preparing a team to participate in the International Physicists' Tournament (IPT).

57 The University of Campinas is a research-intensive public university of the State of São Paulo, with a main campus in the city of Campinas, and other campi in Limeira and Piracicaba. Most students are admitted via a specific admission exam, but they can also postulate admission via the national entrance exam, ENEM.

58 Reliable and up-to-date data on EMI initiatives in Brazil are difficult to obtain, as such initiatives are often decentralized, unevenly documented, and not systematically reported.

The International Physicists' Tournament

The IPT is a competition centered around scientific debate (Vanovskiy, 2014). Teams of up to six undergraduate and/or master's students participate, representing the country of the university to which they are affiliated.

Every year, usually in August, the International Organizing Committee proposes a list of 17 problems selected from a pool of submissions sent via an online form. The typical structure of an IPT problem includes a presentation of the phenomenon to be studied followed by questions that typically fall in the following categories: mathematical modeling, optimization, explanation of the underlying physical principles that govern the phenomenon, and yes/no problem-specific questions. The problem statement usually includes a video or an image that illustrates the problem and improves the understanding of the question.

Problems are restructured and rephrased by a committee before being included in the official list. The IPT website[59] (International Physicists' Tournament, 2026) gives the following information about how this committee structures the problems, based on the submissions it receives:

The IPT problems are designed in a way to not have an exact solution. Your task is to apply a relevant scientific methodology and study the given effect or dependency as deep as possible.

We use three key criteria in selecting and designing problems:

- **Open –** there is no right answer to the task, you can choose your own depth of the solution
- **Allow different approaches –** you can either solve the problem theoretically, experimentally, numerically, or combine these methods
- **Accessible –** tasks are designed to be doable by students, you would not need sophisticated equipment or advanced physics knowledge

As an example, the 2025 IPT problem list (International Physicists' Tournament, 2025) included the "Flying Coin" problem, which we present below. We identify in bold text the parts of the problem statement, following the categories that we have previously defined:

One can make a coin fly from a table into a plate placed on it by blowing on it from a certain angle **[presentation of the phenomenon]**. Investigate the movement of the coin and how it depends on the relevant parameters **[mathematical modeling]**. What is the maximum height of the plate's edge such that the coin still lands on/in it **[optimization]**? Can you predict the face on which the coin lands based on the relevant parameters **[yes/no problem-specific question]**? https://youtu.be/CFOmBmYBJw8 **[link to a demonstration of the phenomenon]**.

59 The IPT problem list is not available as a citable document. The authors have suggested that the IPT organizers change this.

Each debate, called a “Physics Fight” (PF), involves three teams, who take turns in the roles of reporter, opponent, and moderator. In each round of the PF, the current opponent challenges the current reporter to present one problem from that year’s list. The reporter might accept the challenge, use a tactical rejection (valid only for that PF), or a permanent rejection (valid for the entire competition).

Once a problem is accepted, the reporter is given 10 minutes to present their team’s solution in a manner that displays to the jury a clear understanding of Physics, of the scientific method, and proper rigour in experimental and theoretical work. The opponent then prepares and presents a few slides with opening remarks regarding what was presented, and starts a debate to show to the jury the weak points in the reporter’s talk. Finally, the moderator presents their remarks on the discussion up to this point, including a critique of both the original report and the opponent’s comments, and then leads a more open debate about the problem. This final debate aims at improving the jury’s understanding of the Physics in the problem.

The jury is composed of team leaders (who can be professors, post-docs or PhD students) from teams not participating in the PF, as well as invited Physics professors from the host country, so the majority of participants and jury members are not native English speakers. Teams must then learn to identify and navigate possible misunderstandings due to language, in addition to the scientific debate. The same holds for the jury, who are invited to ask questions to all participants before deciding on their grades for the round and, later, can justify these grades.

After a series of qualifying PFs, the team with the highest overall grade becomes the first participant in the grand final PF. The other two participants in the grand final are selected from semifinal PFs between the teams ranked 2 to 7 in the qualifying PFs.

From a didactic point of view, the IPT represents a motivating framework in which active learning of Physics can happen. The problems often involve Physical concepts that are not usually treated in standard undergraduate Physics curricula or require a more advanced treatment of the phenomena. Therefore, IPT takes students beyond what they would learn in their undergraduate or masters’ programs. We have also found that students are highly motivated not only by the opportunity to learn but also due to the “competitive sport” nature of IPT.

The Brazilian Physicists’ Tournament

The IPT rules state that when more than one team in a given country wishes to participate, a national selection must take place. Since 2018, Brazil has had a national selection called the Brazilian Physicists’ Tournament (BPT). The first BPT was held only between the Federal University of ABC and the University of São Paulo. The latest one was hosted by IMPATech[60], in Rio de Janeiro, and had seven participants from five different states, after a long-term effort

60 IMPATech is a new HE branch of the Brazilian Institute of Pure and Applied Mathematics (IMPA) which offers an interdisciplinary bachelor’s degree in Mathematics of Innovation and Technology. Students can choose to focus on Computer Science, Data Science, Mathematics, or Physics.

from the national organizing committee to expand the participants to states from outside the Southeast of Brazil. As a comparison, the latest French Physicists' Tournament involved ten teams (ENS Lyon, 2026).

The context of this effort is a decades-long effort of the scientific community to integrate researchers in a country with twice the surface area of the entire European Union, which by itself imposes a series of challenges for mobility. In addition, high economic development inequalities also impact the funding of universities. The 2026 edition will for the first time be held outside the Brazilian Southeast, in Salvador (Bahia state), a relevant step in making the tournament more accessible to higher education institutions in the Northeast.

All BPT PFs are held in English, including jury questions and remarks, although teams socialize in Portuguese. Other national selections, such as the French Physicists' Tournament, also have PFs in English, in order to facilitate the participation of international students who might not be as fluent in French. From the 2026 FPT website (FPT Organizing Committee, 2026), with translator's[61] notes in brackets:

> La deuxième phase se déroule sur deux jours dans une location unique, traditionnellement en début février chaque année. Toutes les équipes étudiantes se retrouvent alors autour de joutes oratoires et échangent sur les problèmes préparés durant l'année. Afin de garantir la participation de tou.te.s les étudiant.e.s (en particulier internationaux), les discussions se déroulent par défaut en anglais.
>
> (The second phase takes place during two days in a single location, traditionally at the beginning of February of each year. All teams meet for "oratory jousts" **[the Physics Fights]** and to have exchanges about the problems prepared during the **[academic]** year. In order to ensure the participation of all students (in particular international ones), discussions are held in English, by default.)

In the case of the BPT, which has only had Brazilian participants so far, the choice to have the PFs in English was made to help the teams practice their oral skills, and to ensure that the team that represents Brazil already has some experience in engaging in a live scientific debate in English.

A Course for BPT/IPT Preparation

At Unicamp, a first attempt at forming an IPT team was made in 2017 by a group of undergraduate students who had previously participated in the International Young Physicists' Tournament (Plesch et al., 2017), a separate, older competition aimed at high school students. In the second semester of 2019, after one of us (LRT) had participated in the jury of the first BPT in 2018, he offered an elective course for students interested in forming a team. The course had a high attendance, with over 20 enrolled students.

61 Text translated into English by the authors.

The structure of the PFs and the rules of the BPT, presented in sections 2 and 3 respectively, make it fundamental that participants representing Unicamp be able to handle a spontaneous, live scientific debate in English, instead of just presenting a well-rehearsed short talk. This has been the guiding principle that justifies our use of EMI in our course.

The course is currently composed of two 60-hour electives, one offered in the first semester (S1, from March to July), and another in the second (S2, from August to December). The IPT cycle starts in S2, which begins with the announcement of the problem list by the international IPT committee between August and early September, and culminates in December with the BPT. If the team wins the BPT, the S1 course is used as preparation for the IPT, since the BPT uses a reduced list due to the shorter preparation time for that competition. Otherwise, the S1 course is used as an introduction to the competition for students who want to be involved in the next cycle, including those who have just been admitted to Unicamp. It is important to highlight that students that have already taken the two semesters, as well as those that have not yet enrolled, can participate in the activities as an extracurricular activity. Enrolment for the S1 course is therefore usually much lower than for S2, although it has high levels of voluntary attendance.

Students need to be able to debate their ideas and solutions, so the course has been formatted for active, problem-based learning. Instructors who act as team leaders during the competition take the role of mentors and project managers. Instructor tasks include, but are not limited to:

a) Helping students keep track of how close their work on a problem is to becoming a presentable solution,

b) Managing the procurement of materials via the Physics Institute,

c) Helping students conduct literature review,

d) Discussing Physics concepts, approaches to mathematical modeling, and experimental procedures, either when prompted by students or when it becomes clear that an intervention is necessary to prevent work on a problem being delayed to the point that it is no longer viable for the BPT,

e) Providing a “jury viewpoint” and feedback on solution-report presentations.

The first classes of the semester are dedicated to presenting the idea of the IPT to newcomers, as well as short lectures on the topics of literature review, data analysis and representation, experimental design, data acquisition using electronics, and how to structure slides for an oral scientific presentation. These lectures are followed by practical sessions. Other classes take place in a workshop that has a laboratory and a small conference room. There, students can work on the problems and present their results towards the end of the semester.

While the team leaders are fluent in English, students present different levels of prior knowledge in Physics and proficiency in English, as there is no previous selection of those

who are enrolled in the course. The classes are not designed to be language classes; there is no specific moment dedicated to the formal presentation of grammatical or vocabulary content. English is thus perceived as a medium of instruction and communication between participants (leaders-students, students-students).

Even though the instructors communicate in English during classes, students are allowed to ask questions in Portuguese. This seems to ease any embarrassment they might feel if they were forced to communicate exclusively in English. Students show a preference for attempting to express themselves in English first, before switching to Portuguese if they feel that they cannot successfully express their question. This strategy also enables students who are interested in participating in the class and the tournament but have lower English levels to enroll.

Observed EMI Results

We have noticed that the use of Portuguese tends to decrease with time, as students perceive that the goal is not full fluency and accuracy but the use of English as a medium for communication, content learning, and discussion. Furthermore, the fact that their peers are also involved, without pressure or harassment, reduces their fear of making mistakes, boosts their confidence, and encourages their communication attempts.

During the preparation course, we can see that students start using English even when we are not close to them and during group work, indicating an appropriation of the language rather than an imposition from a higher hierarchical level. Small talk quickly begins in English as they feel this is a safe space to practice and express themselves with colleagues.

Another point to highlight is that students must first study related material on the topic to solve the proposed problems. They have to search, read, filter, and discuss academic articles, which are almost exclusively written in English. Moreover, they also come into contact with online material (written and video) produced by international institutions and reliable content creators. Thus, they constantly access authentic, high-quality material in English.

All these factors might explain the improvement witnessed in their communication skills. Since 2019, we have had students with different levels of English language proficiency. By qualitatively comparing the performance of students who participated for more than one year, we noticed a steep increase in fluency in all cases, no matter the starting point. Advisors of former team members have reported to the authors the positive effects that participation in the IPT course and tournament have had on the students.

Besides the academic results, both in engagement with advanced Physics topics and learning of soft skills, it is also worth noting that participation in the IPT also carries a strong social component. In between PFs, and after the end of a day of competition, students from all teams interact informally, using English as a common language outside the context of Physics. These interactions, which are also common in scientific conferences, can lead not only to the

formation of a social network (in the broader sense) which uses English for communication, but also to internationalization opportunities for the participants.

It is also customary for host institutions to organize tours of their facilities, so that participants can see their laboratories, hear about the ongoing research, and interact with faculty and graduate students. These tours are used to present the institution to participants, who can then consider joining as graduate students. At this moment four former participants of the Quantum Coaches team are in France as part of the double diploma program offered by a Unicamp/ParisTech partnership. Three of those students participated in the 2023 IPT, held at the École Polytechnique in Palaiseau, France.

Final Remarks

Regarding the diversity of participating countries, it should be noted that the tournament, which was created by Ukrainian and Russian university students, has a majority of European teams. However, teams from the Americas also participate regularly. China has been represented only twice in the IPT (2015 and 2016), and other parts of Asia have been represented less consistently, with participants from India, Iran, Pakistan, and Singapore. Africa has never had a country represented in the IPT.

At present, Brazil and the United States are the only non-European teams in the top 10 IPT ranking of countries by number of gold, silver, and bronze medals. Brazil is ranked 7th, with two silver medals (won by the University of Campinas Quantum Coaches in 2021 and 2022) and one bronze (won by the Federal University of ABC in 2018), and the USA is ranked 10th, tied with Italy and Slovakia.

We believe that the observed results warrant further study focused specifically on English and soft skills development, along with the impact of participation in the IPT preparation on the students' professional development. The experience of IPT preparation courses may help to definitely prove that when properly conducted, EMI activities may be a very efficient inclusion tool.

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29. EMI as a Bridge to Brazilian Portuguese: Engagement in an Online International Course

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Abstract: Portuguese remains, today, a major language of international communication with growing global reach (UNESCO, 2023). This study examines English-mediated instruction (EMI) in a 15-hour synchronous online introductory (A1 level) Brazilian Portuguese course offered to students at Wrocław University of Science and Technology (Poland) in 2024. Organized by the *Projeto Linguagens e Práticas Sociais* (Universidade de Passo Fundo), the course was designed and taught by Brazilian undergraduate and postgraduate students under faculty supervision. English served as the language of mediation for beginner Polish speakers, mainly from STEM programmes. Data comprise spontaneous in-class feedback and a voluntary post-course questionnaire (N = 19 respondents; 23 attended ≥50% of sessions). An interpretative thematic analysis framed by emotional, behavioral, and cognitive engagement indicates that EMI functioned as an accessible scaffold, reducing initial anxiety, supporting comprehension, and fostering curiosity and enjoyment linked to cultural content. Constraints included lexical limitations and episodic shyness. Pedagogical implications include deliberate vocabulary scaffolding, low-pressure small-group interaction, and flexible scheduling. The study contributes to understanding EMI as a pedagogical bridge to less-commonly-taught languages and recommends qualitatively driven mixed-methods and longitudinal designs to examine sustained engagement and language development.

Keywords: English as a Medium of Instruction, Brazilian Portuguese, language learning, Internationalization of higher education.

Introduction

Portuguese has gained increasing visibility as a global language, supported by its demographic reach and expanding cultural and academic presence. As UNESCO (2023) notes, Portuguese is today considered a major language of international communication. Within this broader context, the present study focuses on how learners experience their first contact with Brazilian Portuguese (BP) in an academic setting, particularly when instruction is mediated through English as a Medium of Instruction (EMI).

The study examines an introductory (A1 level) online course in BP offered to students from Wrocław University of Science and Technology (Poland) between October and December 2024. The course was taught by undergraduate and postgraduate students from the Universidade de Passo Fundo (UPF, Brasil) and conducted entirely in English, following an EMI approach. This provided a common language of instruction for the Brazilian instructors and Polish students, who had no prior knowledge of Portuguese. Although initial enrollment was high, participation eventually stabilized in small groups, which contributed to interaction and comfort during the sessions.

Grounded in an Applied Linguistics perspective, this investigation adopts a qualitative and interpretative approach (Gliner et al., 2017) to understand how learners perceived and engaged with the course. This orientation is consistent with the view that language learning is shaped by

social, emotional, and contextual factors, and that learners' experiences must be interpreted rather than measured. Within this framework, the study seeks to answer the following research question: How did the use of English as a Medium of Instruction influence beginner learners' engagement and initial experiences with BP in an online international course?

Initial indicators from participant feedback suggest strong motivation, positive emotional responses, and appreciation for the cultural content integrated into the course. Learners described the classes as welcoming, clear, and engaging, and they highlighted EMI as a resource that facilitated comprehension and reduced anxiety during their first contact with BP. These preliminary impressions provide the foundation for the qualitative analysis presented in the following sections.

Portuguese Language in the Global Context

Portuguese today occupies a geographically broad and culturally dynamic position, shaped by historical trajectories and contemporary forms of mobility and communication. According to UNESCO (2023), Portuguese is spoken by more than 265 million people across several continents and is the most widely spoken language in the Southern Hemisphere. Its transnational presence, however, is not defined solely by demographic expansion. As Cravinho (2005) demonstrates, Portuguese-speaking communities are connected through long-standing historical, cultural, and symbolic relations that extend beyond Europe and continue to influence how the language circulates globally. In this sense, Portuguese embodies multiple identities shaped across different regions, blending cultures, histories, and accents in ways that naturally stimulate curiosity and interest among new learners (Cravinho, 2005; Andrade, 2019).

This perspective highlights that Portuguese circulates through interconnected political, cultural, and communicative networks, rather than functioning as a language anchored in a single national center. Andrade (2019) shows that Portuguese moves through a global media ecosystem shaped by Brazil's cultural industries, diasporic communities, and digital communication flows, which contribute to its increasing visibility and accessibility in international contexts.

Cultural production, such as music, plays a central role in this process. Pereira (2015) argues that music is a powerful cultural artifact capable of conveying social meanings, identities, and historical experiences, functioning as a bridge between language and culture in foreign language learning. Drawing on Ruud (1990) and Bohlman (2002), Pereira demonstrates that music mediates encounters with other cultures, stimulates emotional engagement, and fosters curiosity about the social worlds represented in songs. These dynamics help explain why BP attracts learners worldwide: Brazilian music, with its global reach and rich sociocultural content, offers an accessible and emotionally resonant entry point into the language. In this sense, Brazilian cultural expressions operate as motivational forces that draw learners toward Portuguese, reinforcing its position within global cultural circulation.

Together, these perspectives reveal that the internationalization of Portuguese is sustained by a combination of historical ties, cultural production, and contemporary media flows. This

understanding provides a meaningful foundation for initiatives such as the EMI - mediated Brazilian Portuguese course examined in this study, where learners' engagement is shaped not only by linguistic accessibility but also by the cultural appeal and global presence of Portuguese.

EMI in the Internationalization Context

English as a Medium of Instruction (EMI) has expanded rapidly across higher education systems worldwide, particularly in countries where English is not the dominant language. Macaro (2018, p. 19) defined EMI as *"the use of the English language to teach academic subjects in countries or jurisdictions where the first language of the majority of the population is not English"*. This definition emphasizes that EMI is not a language-teaching approach; rather, English functions as the vehicular language through which disciplinary content is delivered. The author reinforces this distinction by noting that EMI programs do not explicitly include English language-learning objectives, even though language development may occur as a by-product of content learning.

The global spread of EMI is closely tied to the internationalization of higher education. As Sahan et al. (2021) explained, universities increasingly adopt EMI to strengthen their international profile, attract foreign students, and prepare local students for participation in global academic and professional environments. This trend reflects broader transformations in the global knowledge economy, where English has become a central language of research dissemination, academic mobility, and international collaboration. In this sense, EMI is not merely a pedagogical choice but a strategic response to the linguistic demands of global academia.

In the Brazilian context, EMI has gained visibility as part of efforts to promote internationalization at home. Baumvol and Sarmento (2019) argued that, because Brazil receives relatively few international students and outbound mobility remains limited, EMI can serve as a mechanism to democratize access to international experiences within local institutions. By offering courses in English, universities enable Brazilian students to engage with global academic practices, access international literature more effectively, and participate in multilingual academic communities without leaving the country. Martinez (2016) similarly highlights that EMI can expand opportunities for Brazilian researchers and students to interact with international partners and disseminate their work globally.

At the same time, EMI implementation presents pedagogical challenges. Studies show that EMI teachers often struggle with balancing content delivery and language demands, managing heterogeneous student proficiency levels, and maintaining interaction in the L2 (Sahan et al., 2021; Chuang, 2015). Prabjandee and Nilpirom (2022) note that many instructors are required to adopt EMI without adequate preparation, leading to concerns about linguistic competence, teaching strategies, and student comprehension. These challenges underscore the need for professional development that goes beyond improving English proficiency and includes training in EMI-specific pedagogy, scaffolding techniques, and learner-centered approaches.

Despite these challenges, EMI offers significant opportunities for linguistic and academic development. Baumvol and Sarmento (2019) also emphasize that EMI can foster more equitable participation in global academic networks, particularly in countries located at the periphery of knowledge production. By engaging with English-mediated content, students and instructors gain access to international research, conferences, and collaborative projects. Moreover, EMI can coexist with and even strengthen interest in local languages, including Portuguese, by attracting international students who may later pursue Portuguese language study as part of their academic integration.

In the context of the present study, EMI functioned as a pedagogical bridge that enabled Polish learners with no prior knowledge of Portuguese to engage with BP through a familiar linguistic medium. This aligns with the broader internationalization goals described by Baumvol and Sarmento (2019), as EMI facilitated and mediated intercultural exchange, expanded access to Brazilian academic initiatives, and supported the global visibility of BP within higher education. By mediating the first contact with BP through English, the course examined in this study brings evidence on how EMI can promote linguistic accessibility, reduce anxiety, and foster engagement in multilingual learning environments.

Engagement and Emotions in Language Learning

Research in Applied Linguistics has increasingly demonstrated that emotional experience is not peripheral but central to how learners engage with a foreign language. As Dewaele (2015, p. 13) argues, “emotions are at the heart of the foreign language learning process,” shaping learners’ willingness to participate, their sense of competence, and the quality of their interactions. Engagement, therefore, cannot be understood solely as cognitive effort; it is also an affective and relational phenomenon.

A substantial body of work shows that emotions in the language classroom fluctuate dynamically and influence learners’ moment-to-moment engagement. Gregersen et al. (2014), using idiodynamic methods that are used to analyze rapid, moment-to-moment fluctuations in a person’s emotions, motivation, or cognitive states during specific events, demonstrated that anxiety and enjoyment rise and fall rapidly during communicative tasks, revealing that engagement is a constantly shifting state rather than a stable trait. This aligns with Gregersen’s (2020) view of language anxiety as part of a complex system that interacts with motivation, self-concept, and contextual factors, sometimes facilitating and sometimes inhibiting participation.

Positive emotions play a particularly important role in sustaining engagement. Drawing on the broaden-and-build theory, MacIntyre and Gregersen (2012) showed that positive emotional states expand learners’ attentional scope, support creativity, and foster openness to linguistic input. Dewaele and MacIntyre (2014) further demonstrated that foreign language enjoyment is not simply the absence of anxiety but an independent dimension that predicts deeper engagement, persistence, and willingness to communicate. Their findings reveal that enjoyment and anxiety can co-exist, illustrating the emotional complexity of language learning.

Engagement is also shaped by the interpersonal climate of the classroom. Dewaele and Pavlenko (2002) and Dewaele (2011) highlighted how learners' emotional expression and comfort depend on the quality of teacher-student relationships and the perceived safety of the learning environment. Supportive interactions can reduce anxiety and encourage risk-taking, while harsh correction or negative evaluation can trigger emotional withdrawal (Gregersen, 2003). These relational dynamics directly influence learners' readiness to speak, collaborate, and invest effort.

From a broader perspective, Mercer (2012) conceptualized engagement as part of learners' agentic system, which emerges from the interaction of beliefs, emotions, self-perceptions, and contextual affordances. Agency and thus engagement are strengthened when learners feel capable of influencing their learning process, when they experience emotional support, and when classroom practices acknowledge their individuality.

In this context, insights from Positive Psychology reinforce the idea that emotional wellbeing is foundational for sustained engagement. Mercer et al. (2018) argued that promoting positive emotions, meaningful relationships, and a sense of accomplishment can contribute not only to learners' wellbeing but also to more effective and resilient engagement with the language.

As a whole, these studies show that engagement in language learning is inseparable from emotional experience. Emotions shape how learners participate, how they interpret challenges, and how they persist over time. This interplay underpins pedagogical approaches such as our EMI-mediated Brazilian Portuguese course, which aimed to foster beginners' linguistic development in an emotionally supportive environment.

Context of the Study

The present study is situated in the institutional and pedagogical landscape of the *Projeto Linguagens e Práticas Sociais* (PLPS – Language and Social Practices Project) within the *Curso de Letras* (Letters Programme) at the *Universidade de Passo Fundo* (UPF). This project has undergone significant expansion following the post-pandemic restructuring of the university's outreach policy. As described in the PLPS report, the initiative *Ensino de Português para Falantes de Outras Línguas* (PBFOL – The Teaching of Portuguese for Speakers of Other Languages) has become central in this new phase, responding to the increasing linguistic diversity of Passo Fundo and its surrounding region (Sturm, 2024). Although the teaching of Portuguese to speakers of other languages is a relatively recent addition to the UPF *Letras* curriculum, it has gained substantial visibility due to the growing presence of international students, migrants, and other multilingual individuals seeking linguistic integration and access to academic and professional opportunities.

The PBFOL project is designed to fulfill a dual mission: it offers structured Portuguese classes to non-native speakers while simultaneously providing formative experiences for undergraduate students in the *Letras* programme. This configuration aligns with UPF's understanding of outreach

as a core formative principle, enabling future language professionals to engage in supervised teaching practice, develop intercultural awareness, and reflect critically on the complexities of teaching Portuguese in multilingual contexts. Activities include lesson planning, material development, classroom interaction, and participation in reflective discussions about pedagogical decisions. These practices collectively contribute to the development of learner agency and professional identity, dimensions that Mercer (2011, 2012) and Mercer et al. (2018) identify as central to teacher education.

This initiative also reflects broader institutional efforts toward internationalization and inclusion. By welcoming learners from diverse linguistic and cultural backgrounds, PBFOL fosters intercultural encounters and strengthens the university's role in supporting social integration. This aligns with contemporary perspectives on language education that emphasize the sociocultural and affective dimensions of learning (Dewaele, 2015; Gregersen et al., 2014), as well as the need to create emotionally supportive environments that promote engagement and well-being (Mercer et al., 2018). For *Letras* students, participation in PBFOL expands the traditional boundaries of teacher education by exposing them to heterogeneous groups, sociolinguistic diversity, and the pluricentric nature of the Portuguese language. These elements resonate with current discussions on Portuguese as a global, culturally dynamic language, laying the groundwork for broader international collaborations.

An institutional collaboration between UPF and the Wrocław University of Science and Technology (*Politechnika Wrocławska*), located in Wrocław, Poland, was initiated in 2024. This partnership started with the participation of UPF's International Affairs Coordination (*Coordenação de Assessoria Internacional* – AI) in the host institution's International Week, supported by the Erasmus Mundus Programme. Aiming to foster inter-institutional cooperation, the AI engaged with the UPF Graduate Programme in Letters (PPGL UPF) to devise language-teaching and learning- based strategies. Given that UPF does not currently offer full courses taught in English, alternative actions were formulated to sustain and expand engagement with the Polish university. The primary catalyst for this initiative was the significant interest in Brazil and Brazilian culture observed during the 2024 International Week, which led to the implementation of an introductory (A1 level) course in Brazilian Portuguese during the second semester of the same year.

The course proposal was submitted to the International Relations Directorate of the Polish institution by UPF's AI. This administrative process was streamlined by the dual role of the local coordinator, who simultaneously served as the UPF AI coordinator and the professor responsible for course management. Upon returning from the European summer academic recess, students in Wrocław were informed about the opportunity to enroll in the online, tuition-free course. Over a five-day registration period, the initiative attracted 84 applicants comprising 80 Polish, two Ukrainian, one Belarusian, and one Turkish national, all of whom met the mandatory prerequisite of English proficiency.

Among this cohort, only one was already proficient in Portuguese. As an enthusiast of Brazilian culture and a practitioner of *capoeira*, this student reported that the martial art served

as the primary motivation for learning the language and exploring various national musical genres.

Against this institutional and pedagogical backdrop, the EMI-mediated Brazilian Portuguese course examined in this study emerges as a natural extension of the principles cultivated in PBFOL. By using English as a mediating language, the course broadened access for learners with no prior knowledge of Portuguese, while simultaneously reinforcing UPF's commitment to innovative teaching practices and internationalization at home. Moreover, the proposal sought to offer a learning environment in which engagement, emotions, and intercultural interaction played a meaningful role (Dewaele & MacIntyre, 2014; Gregersen, 2020). Thus, the study was anchored in a context that values linguistic diversity, pedagogical innovation, and the development of reflective, emotionally attuned language educators.

The Portuguese Course

The A1-level course was structured in accordance with the Common European Framework of Reference for Languages (CEFR), mapping core A1 competencies onto the 15 available instructional hours. Methodologically, the curriculum was grounded in the Communicative Language Teaching approach, with a primary focus on oral communication. The syllabus encompassed introductory greetings and salutations, simplified interactional formulas, basic questions regarding daily routines within the university context, speech acts, the phonetic system of Portuguese, cultural curiosities, and contemporary youth slang.

These linguistic components were introduced through the strategic scaffolding of Brazilian music and cultural elements, utilizing a wide array of visual aids and videos across multiple digital platforms. Lessons were prepared every week, allowing the instructional design to be dynamically tailored as the student profile became clearer and in response to the specific interests that emerged from the participants. English served as the main language of instruction and interaction. This linguistic choice was fundamental to the execution of the course, as neither the coordinating professor nor any of the nine UPF students involved in the initiative, comprising one doctoral candidate, one master's student, and seven undergraduate students with varying levels of English proficiency, possessed any knowledge of the Polish language.

Research Design

This study adopts a qualitative and interpretative research design situated within the field of Applied Linguistics. Language learning is understood here as a socially constructed and context-dependent experience, shaped by learners' perceptions, emotions, and interactions. This perspective aligns with the view that qualitative research seeks to interpret how individuals make meaning of their experiences rather than to produce generalizable claims. Gliner et al. (2017) emphasize that qualitative approaches are appropriate when the goal is to understand participants' perspectives in depth and within their natural contexts. They note that qualitative

research is particularly useful when researchers aim to explore how people interpret their experiences and how these interpretations influence their actions.

This interpretative orientation is also consistent with Mercer's (2011, 2012) and Mercer et al. (2018) argument that engagement in language learning is a complex, dynamic, and multifaceted construct that requires methodological approaches capable of capturing learners' subjective experiences. Because this study investigates how students perceived and engaged with an EMI-mediated Brazilian Portuguese course, a qualitative design provides the flexibility and depth needed to examine the nuances of their reactions, motivations, and emotional responses.

Data Sources

This study draws on three complementary qualitative data sources collected at different stages of the course. Data were collected during the 15-hour synchronous course held from October to December 2024. Three complementary qualitative sources were used: (1) a pre-course registration form with closed and open-ended items (demographics, motivations, expectations); (2) a voluntary post-course feedback questionnaire completed by regular attendees (19 respondents, coded S1–S19); and (3) spontaneous in-class feedback recorded during live sessions. Registration and questionnaire responses were exported as text files.

The registration form included both closed and open-ended questions. In addition to demographic information (e.g., age, nationality, academic programme), participants were invited to briefly describe their motivations for enrolling and their expectations regarding the course. These short-written responses provided baseline insights into learners' initial orientations, including expressions of curiosity, enthusiasm, and instrumental goals (e.g., academic or professional interest). Although concise, these comments offered valuable indications of initial emotional and cognitive engagement.

The primary dataset for this study consists of the post-course feedback questionnaire, completed voluntarily by 19 participants. The instrument included a series of open-ended prompts inviting learners to reflect on different aspects of their experience, such as perceived learning, emotional responses, classroom interaction, challenges encountered, and suggestions for improvement. This structure generated a set of short but thematically rich qualitative responses, allowing for the identification of recurring patterns across participants.

The questionnaire data provided evidence relevant to multiple dimensions of engagement. Emotional engagement was reflected in participants' descriptions of enjoyment, curiosity, and anxiety; behavioral engagement emerged in comments about participation, attendance, and interaction; and cognitive engagement was evident in reflections on learning, perceived progress, and requests for more complex content. The diversity of prompts thus enabled a multidimensional analysis aligned with the study's theoretical framework.

In addition, spontaneous in-class feedback was documented during synchronous online sessions in the form of observational notes. These comments, produced during real-time

interaction, offered contextual insights into learners' immediate reactions, participation dynamics, and comfort levels when engaging with tasks. While not systematically elicited, these observations served as a supplementary data source, contributing to the interpretation of patterns identified in the questionnaire responses.

These sources allow for a form of qualitative triangulation, linking initial expectations (registration data) with retrospective reflections (post-course feedback) and observed interactional behavior (in-class comments). This combination enhances the depth and credibility of the analysis by capturing learner engagement as a dynamic and evolving process.

Procedures

The analysis followed an interpretative thematic approach, consistent with qualitative research principles in Applied Linguistics, which emphasize understanding how participants construct meaning from their experiences (Gliner et al., 2017). Rather than quantifying responses, the aim was to identify and interpret recurring patterns that illuminate how learners experienced the EMI-mediated course.

The analytical process unfolded in iterative stages. First, all qualitative data from the post-course feedback questionnaire were compiled and read multiple times to ensure familiarization with the dataset, as recommended by Gliner et al. (2017). During this stage, initial notes were taken to capture salient ideas, recurrent expressions, and emotionally marked language (e.g., references to enjoyment, curiosity, anxiety, or difficulty). Registration-form responses and observational notes from in-class feedback were also reviewed at this stage to provide contextual grounding and to trace continuities between initial expectations and reported experiences.

In the second stage, an initial set of codes was generated through a combination of inductive and theoretically informed (deductive) coding. Inductive coding allowed themes to emerge from participants' own words, while deductive coding was guided by the study's conceptual framework, particularly Mercer's (2011) multidimensional model of emotional, behavioral, and cognitive engagement. This approach reflects Mercer's (2011, 2012) and Mercer et al. (2018) view of engagement as a complex and dynamic construct that requires analytical sensitivity to both emergent meanings and theoretically grounded categories.

Codes were then organized into broader thematic categories corresponding to the engagement dimensions. Emotional engagement included expressions of enjoyment, curiosity, motivation, anxiety, and comfort, in line with research highlighting the central role of affect in language learning (Dewaele, 2015; Dewaele & MacIntyre, 2014). Behavioral engagement encompassed references to participation, attendance, interaction patterns, and willingness to communicate, while cognitive engagement captured reflections on learning, perceived progress, content attention, and reported challenges related to linguistic complexity. Particular attention was given to the coexistence of positive and negative emotions, following Dewaele and MacIntyre's (2014) understanding that enjoyment and anxiety are distinct yet simultaneously present dimensions of the learning experience.

In the third stage, themes were refined through a recursive process of constant comparison, whereby data excerpts were revisited to ensure that categories adequately represented the range and variation of participants' perspectives (Gliner et al., 2017). This process also allowed for the identification of patterns of convergence and divergence across responses, as well as the selection of representative excerpts that illustrate key themes. Attention was given not only to dominant patterns but also to less frequent or ambivalent responses, reflecting the dynamic and fluctuating nature of engagement described in studies of language learning emotions (Gregersen et al., 2014; Gregersen, 2020).

Observational notes derived from spontaneous in-class feedback were incorporated as a supplementary interpretative layer. Although not systematically elicited or coded, these observations provided contextual insights into learners' real-time reactions and interactional dynamics, supporting the interpretation of questionnaire data. This use of multiple data sources aligns with qualitative research practices that seek to enhance interpretative depth through contextualization rather than statistical generalization (Gliner et al., 2017).

Throughout the analysis, the focus remained on understanding how EMI mediated learners' engagement across emotional, behavioral, and cognitive dimensions. Consistent with Mercer's (2011, 2012) perspective, these dimensions were not treated as isolated variables but as interrelated components of a dynamic system shaped by learners' perceptions, emotions, and the instructional environment.

Ethical Considerations

This study, conducted as part of the research collaborative project Internationalization in Higher Education: Dimensions, Challenges, and Perspectives, was submitted to and approved by the UPF Institutional Review Board (CAAE: 30687420.3.0000.5342). Following the ethical guidelines for research involving human participants, all individuals voluntarily agreed to provide feedback during the course and to complete the post-course assessment form. To safeguard confidentiality and ensure that participants could not be identified, each individual was assigned a coded label composed of the letter "S" and a sequential number (S1–S19). Personal names and any information that could reveal participants' identities were omitted from all reported findings.

Results

The results synthesize evidence from two complementary datasets: (a) the course registration form completed by students at Wrocław University of Science and Technology and (b) the post-course questionnaire and spontaneous in-class feedback (participants coded S1–S19). Findings are organized into a short sample description followed by the three engagement dimensions (emotional, behavioral, cognitive) and a brief integrative account of EMI as a mediating factor. Quotations are anonymized and identified by source when appropriate.

Participants

The analytic sample comprises the 19 participants (coded S1-S19) who completed the voluntary post-course feedback form. The course itself was a 15-hour, synchronous online offering: 23 attended ≥50% of the classes. Of those 23 regular attendees, 19 returned the post-course questionnaire. Respondents were predominantly Polish and enrolled in STEM and technology-oriented programmes (Computer Science, Mechatronics, Civil Engineering, Biomedical Engineering, Automation and Robotics), with ages concentrated in the late teens and early twenties.

Methodological caveats are important. First, completion of the feedback form was voluntary, and it was administered approximately two weeks after the final session; this delay and the non-mandatory nature of the instrument likely reduced response rates and may have attenuated the immediacy of reported engagement. The findings reported below reflect the experiences of a self-selecting subset of participants (those who attended regularly and chose to respond) and should be interpreted with attention to potential response and recall biases.

Emotional Engagement

The data reveal a strong presence of positive emotional engagement, particularly in the form of curiosity, enjoyment, and interest in Brazilian culture. Initial registration comments (e.g., expressions such as “I can’t wait” or “Let’s have fun”) indicate a positive anticipatory orientation, which was largely sustained in post-course reflections. Participants frequently associated their enjoyment with the interpersonal climate of the course, especially the perceived friendliness and supportiveness of the instructors.

These findings align with Dewaele’s (2015) argument that emotions are central to language learning and with Dewaele and MacIntyre’s (2014) distinction between enjoyment and anxiety as coexisting dimensions. Indeed, while positive affect predominated, the data also reveal moments of emotional ambivalence, particularly in relation to speaking tasks. Some participants reported feelings of shyness or hesitation due to limited vocabulary, suggesting that enjoyment and anxiety fluctuated dynamically during the learning process. This pattern reflects Gregersen et al.’s (2014) characterization of emotional experience as moment-to-moment and context-dependent.

The use of EMI appears to have contributed to a sense of emotional safety, particularly in the initial stages of learning. Participants’ comments suggest that the availability of English reduced uncertainty and facilitated engagement, supporting the interpretation of EMI as an affective scaffold that lowers initial barriers to participation.

Behavioral Engagement

Behavioral engagement was reflected in patterns of attendance, participation, and interaction. While initial enrollment was relatively high, sustained participation was concentrated among a smaller group of students who attended regularly and completed the feedback form. This pattern highlights the importance of distinguishing between declared motivation and enacted participation, as emphasized in qualitative approaches to engagement (Gliner et al., 2017).

Among active participants, responses indicate consistent involvement in classroom activities, including speaking, responding to prompts, and participating in interactive tasks such as quizzes and polls. Importantly, participants emphasized the role of low-pressure interactional formats, such as small-group work, in facilitating their willingness to participate. This supports Mercer's (2011, 2012) and Mercer et al. (2018) view of engagement as relational and context-dependent, emerging from the interaction between learner characteristics and classroom affordances.

At the same time, behavioral engagement was influenced by external and structural factors, including scheduling constraints, academic workload, and time zone differences. These factors contributed to attrition and limited participation for some learners, indicating that engagement cannot be understood solely in psychological terms but must also account for contextual conditions.

Cognitive Engagement

Evidence of cognitive engagement is reflected in participants' reported learning, sustained interest in content, and desire for further development. Registration responses indicate both intrinsic motivations (e.g., interest in languages and culture) and instrumental goals (e.g., enhancing one's résumé), suggesting multiple entry points for cognitive investment.

Post-course reflections reinforce this pattern, with participants frequently reporting perceived learning gains (e.g., "I learned a lot") and expressing interest in continuing their studies. At the same time, several participants requested more opportunities for grammar-focused instruction and productive language use, indicating a desire for deeper cognitive engagement and increased challenge.

These findings suggest that while EMI facilitated initial access to content, it also created moments where cognitive load became salient, particularly when learners attempted to produce language with limited lexical resources. Such experiences reflect the dynamic nature of cognitive engagement described by Mercer (2011, 2012) and Mercer et al. (2018), where challenge and competence must be balanced to sustain involvement.

EMI as a Cross-Cutting Mediator

Across all three dimensions, EMI emerged as a central mediating factor shaping learners' engagement. From an emotional perspective, EMI contributed to reduced anxiety and increased comfort, functioning as an affective buffer during learners' first contact with Portuguese. From a behavioral perspective, it enabled participation by providing a shared linguistic resource for communication. From a cognitive perspective, it facilitated comprehension of content while also highlighting the need for gradual transition toward greater use of the target language.

At the same time, the data reveal a degree of tension inherent in EMI-mediated language learning. While participants valued the accessibility provided by English, some also expressed a desire for more exposure to Portuguese and more opportunities for active language production. This tension reflects broader discussions in EMI research regarding the balance between accessibility and target-language immersion.

Taken together, the findings suggest that EMI operates not as a neutral medium but as an active component of the learning environment, shaping how learners experience, interpret, and engage with the language. In line with Mercer's (2011, 2012) and Mercer et al.'s (2018) dynamic perspective, EMI can be understood as part of a broader system of interacting factors that influence emotional, behavioral, and cognitive engagement.

Final Thoughts

This study examined a 15-hour EMI-mediated introductory (A1 level) online course in Brazilian Portuguese offered to students at a university in Poland. The evidence indicates that EMI functioned as an initial access scaffold as it supported comprehension, reduced initial anxiety, and enabled emotional, behavioral, and cognitive engagement among beginners. Participants reported curiosity, enjoyment, and cultural interest, perceived learning gains, and appreciation for teachers' support and low-pressure interaction formats. At the same time, episodic shyness, lexical limitations, and logistical constraints moderated participation for some learners.

For the group designing EMI-mediated beginner language courses, three pedagogical priorities emerge from the data: 1) Vocabulary scaffolding: provide pre-task lexical briefs, visual glossaries, and recycled practice to reduce cognitive load and increase willingness to produce. 2) Low-pressure interaction: Use small-group work and scaffolded speaking opportunities to foster emotional safety and behavioral participation. 3) Scheduling and communication: anticipate and mitigate attrition caused by time-zone differences and academic workload through flexible scheduling and clear expectations.

By organizing analysis explicitly around emotional, behavioral, and cognitive engagement, the study demonstrates how EMI can operate simultaneously as an affective buffer, a behavioral enabler, and a cognitive access tool during learners' first contact with an additional language. The coexistence of positive affect and momentary inhibition in the data supports dynamic,

relational models of engagement and underscores the centrality of emotional well-being for sustained language learning.

Factors such as the analytical sample being composed of self-selected participants (N = 19 respondents out of 23 attended ≥50% of the sessions), the feedback being voluntary and collected approximately two weeks after course completion, and the short course duration limit the generalizability of the findings. These aspects should be taken into consideration in future studies.

Future research should adopt a qualitatively driven mixed-methods design that triangulates self-reports with classroom observations, idiodynamic or experience-sampling techniques for fine-grained affective tracing, and qualitative pre/post task analyses, such as narrative analyses, to capture the breadth and complexity of learner engagement. Comparative, qualitatively oriented case studies of EMI and target-language-first approaches would clarify trade-offs between initial accessibility and early target-language use. Longitudinal follow-up using interviews or feedback narratives in the target language could determine whether initial EMI-mediated engagement leads to sustained learning of Portuguese.

Despite the need for further research, these findings already provide evidence that EMI can be a pragmatic and pedagogically useful bridge for introducing an additional language to beginners in a transnational, online setting. When combined with intentional scaffolding and emotionally supportive practices, EMI helps lower initial barriers, foster engagement across emotional, behavioral, and cognitive dimensions, and open pathways for deeper, longer-term language learning.

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30. Gastronomy as Language: Sensory Mediations of Culture in an International Academic Event

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Abstract: This chapter explores gastronomy as a form of language and a mediating practice in international academic contexts. Drawing on the experience of the 2025 Integrating Content and Language in Higher Education Conference hosted in Southern Brazil, it examines how curated culinary practices can communicate identity, territory, and cultural memory beyond verbal and textual modes. The menu, developed by a university-based junior enterprise, was intentionally designed to represent elements of Brazilianness and regional specificities of Rio Grande do Sul, while engaging with contemporary culinary reinterpretations. Through selected dishes, the chapter illustrates how local ingredients and traditions can be re-signified within global contexts, creating a dialogic space between hosts and international participants. Grounded in a perspective that understands internationalization as both academic and experiential, the chapter argues that gastronomy functions as a sensory and affective semiotic system that enhances intercultural engagement. By integrating food into the academic program, the initiative expanded the cultural dimension of the event and fostered embodied forms of interaction. The chapter contributes to discussions on internationalization by highlighting the potential of gastronomy as a pedagogical and intercultural tool.

Keywords: Gastronomy, Internationalization, Interculturality, Cultural Mediation.

Introduction

The selection of recipes served during the Integrating Content and Language in Higher Education Conference (ICLHE) 2025 was not incidental. Rather, it was conceived as an integral component of the event's cultural and academic design. Like verbal languages, gastronomy can be understood as a system of meaning-making: it communicates identity, history, belonging, and cultural memory (Barthes, 1997). In this sense, food operates as a semiotic resource[62] capable of conveying meanings that extend beyond the verbal domain.

The preparations developed by Açafrão Jr. — the junior enterprise of the Gastronomy program at the Federal University of Health Sciences of Porto Alegre (UFCSPA), responsible for the event's catering — were designed as sensory experiences aimed at expressing elements of Brazilianness and, more specifically, the cultural configurations of Southern Brazil, particularly the state of Rio Grande do Sul.

This approach aligns with broader understandings of internationalization in higher education as not only a linguistic or academic process, but also a cultural and experiential one. Within this framework, gastronomy was mobilized as a mediating practice capable of expanding participants' engagement beyond theoretical discussions, fostering embodied and affective forms of intercultural encounter.

62 Translation to English by Ana Luiza Pires de Freitas

Gastronomy as Cultural Mediation

The planning of the menu was grounded in a reflection on the role of food as a cultural mediator in academic and international contexts. In contrast to purely representational forms of culture, gastronomy offers an immediate and sensory mode of engagement, enabling participants to experience cultural references through taste, texture, and aroma.

The selected preparations sought to establish a dialogue between local and global dimensions. On the one hand, they incorporated ingredients and culinary practices rooted in the regional context. On the other, they engaged with contemporary gastronomic techniques and presentation formats, allowing these elements to be reinterpreted within a globalized culinary framework.

In doing so, the menu functioned as a bridge between the host territory and the international audience, creating conditions for a form of cultural exchange that is experiential rather than solely discursive.

Culinary Narratives: Between Tradition and Contemporary Reinterpretation

Salami and Honey Vinaigrette

Figure 1. Salami and Honey Vinaigrette

Salami occupies a central place in the gastronomic history of Rio Grande do Sul, reflecting the enduring influence of Italian immigration on the region's cultural formation. Its presence in domestic settings and traditional preservation practices has contributed to its status as a symbol of regional identity.

In the context of the conference, the salami vinaigrette was served on a slice of *cuca*, forming a bruschetta that rearticulates this heritage within a contemporary culinary format. The addition

of honey introduces a deliberate contrast between savory and sweet elements, enhancing the primary ingredient while maintaining its integrity.

This preparation illustrates how traditional ingredients can be re-signified through contemporary techniques, producing new meanings while preserving their cultural references.

The recipes presented below exemplify how culinary preparations can function as cultural narratives. Beyond their technical composition, each dish embodies specific historical, regional, and symbolic references, illustrating the ways in which gastronomy can mediate intercultural dialogue within an international academic setting.

Recipe (Approximate yield: 10 servings of 40 g)

Ingredients

- Salami: 100 g (≈ ½ cup, diced)
- Tomato: 180 g (≈ 1 medium tomato, seeded and diced)
- Onion: 60 g (≈ ½ medium onion, diced)
- Honey: 30 g (≈ 1½ tablespoons)
- Balsamic vinegar: 15 g (≈ 1 tablespoon)
- Olive oil: 30 g (≈ 2 tablespoons)
- Salt: 2 g (≈ ½ level teaspoon)
- Ground black pepper: 1 g (≈ ½ level teaspoon)

Method

1. Dice the salami, seeded tomato, and onion into small cubes.
2. In a bowl, combine the honey, balsamic vinegar, olive oil, salt, and black pepper, mixing until an emulsion forms.
3. Add the salami, tomato, and onion, and gently mix until evenly incorporated.
4. Refrigerate for 20–30 minutes before serving.

Serving suggestion:
Serve on a slice of *cuca* or rustic bread as a shared appetizer.
Contextual note:
This preparation reinterprets Italian immigrant heritage in Southern Brazil through a contemporary, shareable format.

Creamy Passion Fruit *Cocada*

Figure 2. Creamy Passion Fruit Cocada.

Cocada is widely recognized as an emblematic dessert within Brazilian cuisine, characterized by its regional variations and cultural significance. The choice of a creamy passion fruit version highlights two elements strongly associated with Brazilian food identity: coconut and tropical fruits.

The acidity and freshness of passion fruit counterbalance the sweetness of condensed milk and coconut, resulting in a preparation that reflects the diversity and complexity of Brazilian flavors. This balance can be understood not only in sensory terms, but also as an expression of the multiplicity of cultural influences that shape the country's culinary landscape.

***Recipe* (Approximate yield: 10 servings of 100 g)**

Ingredients

- Sweetened condensed milk: 395 g (1 can)
- Coconut milk: 200 ml (≈ ¾ cup)
- Unsalted butter: 20 g (≈ 1 tablespoon)
- Passion fruit pulp (with seeds): 180 g (≈ 2 large fruits)
- Fresh grated coconut: 300 g (≈ 3 cups)

Method

1. In a saucepan, combine the condensed milk, coconut milk, and butter.
2. Cook over medium-low heat, stirring continuously, until the butter melts and the mixture becomes homogeneous.

3. Add the grated coconut and continue cooking, stirring constantly, until the mixture begins to thicken.
4. Add the passion fruit pulp and cook further until the mixture reaches a creamy, thick, and glossy consistency, partially pulling away from the bottom of the pan.
5. Remove from heat, allow to cool slightly, and serve.

Serving suggestion:

Serve slightly warm or at room temperature in small portions.

Contextual note:

Combining coconut and passion fruit, this dessert reflects the balance of sweetness and acidity characteristic of Brazilian confectionery traditions.

Tapioca Cubes with *Bergamota* Sweet Chili Sauce

Figure 3. Tapioca Cubes with Bergamota Sweet Chili Sauce.

The tapioca cubes exemplify the incorporation of traditional ingredients into contemporary culinary practices. Derived from cassava starch, tapioca has Indigenous origins and has been part of Brazilian food systems for centuries, particularly in the North and Northeast regions.

Presented in the form of cubes—crispy on the outside and creamy on the inside—this ingredient is repositioned within a contemporary gastronomic context. The accompanying sweet chili sauce introduces a regional dimension specific to Southern Brazil. The fruit regionally known as *bergamota* in southern Brazil (*Citrus reticulata*), commonly referred to in English as *mandarin*, is an emblematic fruit of Rio Grande do Sul, closely associated with everyday practices and affective memory. Together, these elements produce a preparation that embodies processes of cultural exchange, adaptation, and coexistence.

Recipe (Approximate yield: 70 cubes, 2,5 × 2,5 cm)

Ingredients (Tapioca Cubes)

- Whole milk: 1 L (≈ 4 cups)
- Granulated tapioca: 500 g (≈ 3 cups)
- Coarsely grated *queijo coalho* (a firm rennet curd cheese): 350 g (≈ 2½ cups)
- Salt: 5 g (≈ 1 teaspoon)
- Ground black pepper: to taste
- Oil: for deep frying

Method (Tapioca Cubes)

1. Line a 20 × 30 cm baking tray with plastic wrap.
2. Heat the milk until it reaches a boil, then remove from heat.
3. In a large bowl, combine the tapioca, cheese, salt, and pepper.
4. Pour the hot milk over the mixture, stirring thoroughly until fully incorporated.
5. Transfer the mixture to the prepared tray and spread evenly (approximately 2 cm thick). Cover with plastic wrap and smooth the surface with your hands.
6. Refrigerate for at least 3 hours.
7. Remove from the tray, discard the plastic, and cut into 2 cm strips, then into cubes.
8. Fry in oil at 180 °C until golden.
9. Drain on paper towels and serve with bergamot sweet chili sauce.

Ingredients (*Bergamota* Sweet Chili Sauce)

1. *Bergamota* juice: 200 ml (≈ 3–4 fruits)
2. Sugar: 120 g (≈ ¾ cup)
3. Rice or apple cider vinegar: 50 ml (≈ 3 tablespoons)
4. Red chili pepper (seeded, finely chopped): ½ unit
5. Garlic: 1 small clove, grated
6. Salt: 2 g (a generous pinch)
7. Cornstarch: 10 g (≈ 1 tablespoon)
8. Water: 30 ml (to dissolve the cornstarch)

Method (Sauce)

1. In a saucepan, combine the bergamot juice, sugar, vinegar, garlic, chili, and salt.
2. Simmer over low heat for approximately 10 minutes, until slightly reduced.
3. Add the cornstarch dissolved in water and cook for an additional 2 minutes, until lightly thickened.
4. Adjust acidity, sweetness, or spiciness if necessary.
5. Allow to cool before serving.

Serving suggestion:

Serve hot, immediately after frying, accompanied by the sauce.

Contextual note:

This dish brings together Indigenous culinary heritage and Southern Brazilian identity, highlighting processes of cultural adaptation and coexistence.

Vegan Banana Cake

Figure 4. Vegan Banana Cake.

The vegan banana cake was selected for its representation of contemporary values such as dietary inclusion, sustainability, and accessibility. Bananas, widely consumed across Brazil, are associated with abundance and everyday food practices.

The vegan adaptation responds to diverse dietary needs while maintaining sensory quality. Furthermore, the use of ripe bananas aligns with practices aimed at reducing food waste, highlighting the intersection between gastronomy and broader social concerns.

This preparation concludes the menu with an emphasis on simplicity and inclusivity, reinforcing the idea that culturally meaningful food does not require complexity or exclusivity.

Recipe (Approximate yield: one 20 × 30 cm cake)

Ingredients

- Mashed ripe bananas: 300 g (≈ 3 very ripe medium bananas)
- Brown sugar: 150 g (≈ ¾ cup)
- Vegetable oil: 80 ml (≈ ⅓ cup)
- Water or plant-based milk: 120 ml (≈ ½ cup)
- Apple cider vinegar: 10 ml (≈ 2 teaspoons)
- Wheat flour: 240 g (≈ 2 cups)
- Ground cinnamon: 3 g (≈ 1 teaspoon)
- Salt: 2 g (a generous pinch)
- Baking powder: 10 g (≈ 1 level tablespoon)

Method

1. Preheat the oven to 180 °C.
2. In a bowl, mash the bananas until smooth.
3. Add the brown sugar and oil, mixing until well combined.
4. Incorporate the water (or plant-based milk) and vinegar, mixing again.
5. Add the flour, cinnamon, and salt, stirring until a smooth batter forms.
6. Gently fold in the baking powder.
7. Pour the batter into a greased and floured 20 × 30 cm baking pan.
8. Bake for 35–40 minutes, or until a toothpick inserted in the center comes out clean.
9. Allow to cool slightly before removing from the pan and serving.

Serving suggestion:

Serve warm or at room temperature, optionally with coffee or tea.

Contextual note:

This preparation emphasizes accessibility, sustainability, and inclusion, reflecting contemporary values in Brazilian food practices.

Final Considerations

The set of recipes presented at the conference constitutes more than a curated menu; it forms a coherent gastronomic narrative that articulates identity, territory, and hospitality. Within the context of an event dedicated to languages, gastronomy emerged as a complementary semiotic system, capable of communicating cultural meanings through sensory and affective channels (Fischler, 1988).

The integration of culinary practices into the academic program contributed to expanding the cultural dimension of the event, offering participants direct engagement with regional references. This approach reinforces the understanding of internationalization as a multidimensional process, encompassing not only linguistic and academic exchanges, but also embodied and experiential forms of interaction.

The work developed by Açafrão Jr. further highlights the role of student-led initiatives in bridging technical expertise, cultural representation, and collaborative practice. Their participation underscores the potential of gastronomy as both a pedagogical and intercultural tool, capable of fostering meaningful connections across contexts.

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