

Research paper

Across Languages Through AI: Teachers' Perspectives from a Multilingual University

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ABSTRACT

The increasing presence of artificial intelligence (AI) in higher education is transforming teaching practices, especially in multilingual universities where linguistic diversity is central to everyday academic interactions. This study investigates how university teachers engaged with AI tools at a multilingual institution before institutional guidelines for their use had been established and classroom practices had become more firmly developed. It forms part of a wider research project exploring teaching practices, opportunities, and challenges in multilingual classrooms at the University of Luxembourg. Data were collected through semi-structured interviews with university teachers from different faculties and disciplines. These interviews explored teachers' experience of teaching in this multilingual context, their use of AI technologies, and their perceptions of opportunities and challenges associated with these tools. The findings suggest that AI tools are primarily used as supportive instruments to facilitate translation, improve communication, assist with teaching material, and manage multilingual classroom interactions. Teachers highlight the efficiency and practical value of such tools, particularly in reducing workload and enabling access across languages. However, teachers also expressed concerns about potential overreliance on AI technologies, limitations in capturing linguistic and cultural nuance, and implications of these technologies for academic integrity and student learning. The findings emphasise the importance of encouraging critical engagement with AI and developing AI literacy among teachers and students alike, to ensure that these tools enhance rather than replace linguistic competence and pedagogical judgement in linguistically diverse educational environments.

Keywords: teaching, linguistic diversity, higher education, artificial intelligence (AI)

Multilingualism has become a defining characteristic of contemporary higher education. Processes of internationalisation, together with student and staff mobility, have transformed universities into linguistically and culturally diverse environments that bring together individuals with varied linguistic repertoires and educational backgrounds (Babaci-Wilhite et al., 2025). This diversity enriches teaching and learning through multiple perspectives and intercultural exchange, but it also requires teachers to adapt their pedagogical and communicative practices to accommodate different linguistic repertoires. Language thus plays a central role in how knowledge is negotiated, disciplinary content is made accessible, and classroom interaction is organised.

In such diverse higher education contexts, artificial intelligence (hereafter AI) applications have become an integral part. Advances in neural machine translation and generative AI have expanded the ways students and teachers communicate, prepare learning materials, access academic content, and engage with knowledge (Yuxiu, 2025). Among these technologies, AI-assisted translation tools such as DeepL and Google Translate have become routine resources for communication, whereas generative AI tools such as ChatGPT have introduced new

possibilities for generating content, revising, and transforming academic texts (Adamakis & Rachiotis, 2025; Bahroun et al., 2023). Although these tools serve different educational purposes, they increasingly shape everyday teaching and learning practices in multilingual universities (Bayaga & Mdzanga, 2026).

The growing presence and use of AI have attracted scholarly attention within higher education research. Existing studies suggest that AI can improve accessibility, facilitate multilingual communication, personalise learning, and support more adaptive learning environments (Crompton & Song, 2021). The emergence of generative AI following the release of ChatGPT has further intensified discussions surrounding academic integrity and the changing roles of teachers and students in knowledge production (Bahroun et al., 2023; Darvishi et al., 2024; Fan et al., 2025). However, scholars argue that the educational value of AI depends on responsible pedagogical integration and ethical governance as well as teachers' capacity to critically evaluate and guide students' use of these technologies (Bayaga & Mdzanga, 2026).

These developments are particularly important in multilingual universities, where teaching and learning routinely involve moving across several languages. AI-assisted translation can facilitate communication and access to multilingual learning environments, but communication across languages involves more than the technical transfer of words. It requires cultural interpretation, disciplinary conventions, interpersonal understanding, and the flexible mobilisation of students' linguistic repertoires. As Jackson (2020) argues, intercultural communication depends on critical awareness and contextual interpretation, while House and Kádár (2021) highlight the social and pragmatic dimensions of multilingual interaction that automated systems cannot fully reproduce. Likewise, Freeth (2024) cautions that AI-generated translations often appear linguistically neutral despite reflecting dominant language norms and underlying biases. AI-assisted translation therefore changes how multilingual communication is negotiated in classrooms, but it does not eliminate the need for human mediation or plurilingual pedagogical practices.

Although research on AI in higher education has expanded rapidly, relatively little attention has been paid to teachers' experiences of using AI and AI-assisted translation within multilingual teaching contexts. Existing work has focused primarily on language learning, technological performance, students' use of generative AI, or broader pedagogical applications (Bahroun et al., 2023; Darvishi et al., 2024; Fan et al., 2025). Less is known about how teachers perceive the use of AI and to what extent they integrate AI into their practices, including preparing teaching materials, supporting classroom interaction, communicating with students and colleagues, and responding to students' use of generative AI. These perspectives provide valuable insight into how educators interpret the opportunities, uncertainties, and pedagogical implications associated with the emergence of AI tools.

The present article addresses this gap through qualitative interview data collected as part of a broader doctoral research project exploring teaching practices in multilingual classrooms at the University of Luxembourg. Although the original research did not specifically investigate AI, reference to AI tools, particularly DeepL, and later ChatGPT, emerged repeatedly throughout the interviews. Teachers discussed AI tools, particularly DeepL, in relation to facilitating classroom interaction as well as translating and drafting emails and other written texts. They also reflected on students' use of AI, especially ChatGPT, primarily in relation to written assignments, assessments, and responsible academic practice. These recurring accounts indicated that, at that time, AI had already become integrated into everyday teaching, prompting a more focused analysis.

Accordingly, this article explores how university teachers experienced and evaluated tools in this multilingual setting at a point when institutional guidance and classroom practices for their use were still developing. It examines the role teachers attributed to AI-assisted translation in supporting communication and pedagogical practices, alongside their perspectives on students' use of generative AI. This study foregrounds teachers' perspectives from a formative period of AI integration. It argues that AI-assisted translation should be understood as a pedagogical resource that supports communication alongside teaching practices that draw on students' full linguistic repertoires. The findings further suggest that the educational value of AI depends on its critical and contextualised use, where teachers and students continue to exercise linguistic judgement and pedagogical agency.

LITERATURE REVIEW

The linguistic landscape of higher education has changed significantly in recent decades as universities have become increasingly internationalised spaces. Processes of student and staff mobility, together with transnational education, have contributed to classrooms characterised by diverse linguistic repertoires and educational experiences (Babaci-Wilhite et al., 2025; Skourmalla, 2025). In such environments, linguistic diversity is shaped through the interaction between institutional approaches to language and the everyday communicative practices of students and teachers. Universities establish multilingual environments through language policies, programmes, and institutional practices, whereas individuals navigate these environments through their own linguistic repertoires and the ways they use their linguistic resources to communicate and participate (Angouri & Delmas, 2026; Franceschini & Veronesi, 2013).

The presence of linguistic diversity consequently has implications for how teaching, learning, and participation are organised within higher education. Linguistic diversity can enrich higher education through the presence of different perspectives, experiences and ways of constructing knowledge. At the same time, multilingual universities must consider how language practices influence participation and access to knowledge. Language therefore functions as a means of transmitting information, but also as a resource that shapes academic identity, inclusion and learning opportunities. From this perspective, meaningful participation depends on the extent to which students are able to engage across linguistic differences (Babaci-Wilhite & Mchombo, 2020). Relatedly, research on intercultural communication emphasises that communication across languages involves negotiating meanings, perspectives, and cultural understandings rather than viewing communication across languages as a simple transfer of information (Jackson, 2020).

These perspectives have contributed to growing interest in plurilingual pedagogies, which position students' linguistic repertoires as resources for learning. Plurilingual approaches challenge the assumption that successful academic participation requires conformity to a single dominant language. Instead, they acknowledge that students draw on their complete linguistic repertoires dynamically to communicate and engage in the learning process (Council of Europe, 2020; García & Wei, 2014). In higher education, such pedagogies position linguistic diversity as an element of academic engagement, encourage teachers to design learning environments that legitimise multilingual communication and create opportunities for students to mobilise their linguistic resources (Chu Lau & Van Viegen, 2020).

At the same time, the increasing presence of digital technologies introduces new dimensions to multilingual learning environments. Digital platforms have become embedded in many aspects of university teaching, including communication with students, preparation of teaching materials, assessment, and access to academic resources. Artificial intelligence (AI) represents one of the most recent developments in this broader process of educational digitalisation (Bahroun et al., 2023; Crompton & Song, 2021). It encompasses a wide range of educational applications, such as adaptive learning systems, automated feedback, content generation, learning analytics and language-support technologies. The present article focuses on AI-assisted translation and language-support tools, as these were the applications most consistently discussed by participating teachers.

Within multilingual universities, AI-assisted translation has become particularly relevant as teachers daily navigate linguistic diversity. These tools support access to academic materials, communication across languages, and participation in academic activities where language may create practical challenges (Ou et al., 2024). Students similarly use these tools to produce written assignments and to participate in multilingual learning environments (Black & Tomlinson, 2025). Consequently, AI-assisted translation increasingly mediates many of the communicative practices through which multilingual teaching and learning take place.

Among these tools, DeepL and ChatGPT represent two distinct, although increasingly overlapping forms of AI support. DeepL is primarily recognised as a neural machine translation platform that provides translations and assists users in revising multilingual texts. In multilingual higher education, it has become a practical resource for translating emails and facilitating communication across languages. ChatGPT, by contrast, is a generative AI platform capable of revising, summarising, and translating texts. Although translation constitutes only one of its many functions, educational discussions have focused particularly on its implications for students' written production, assessment, and academic integrity (Bahroun et al., 2023; Darvishi et al., 2024). This distinction is reflected in the present study, where teachers primarily discuss DeepL in relation to multilingual communication and ChatGPT in relation to students' production of academic work.

Although the aforementioned AI tools facilitate communication across languages, their educational contribution cannot be understood solely in terms of technological efficiency. Multilingual communication involves disciplinary conventions, intercultural understanding, contextual interpretation, and the dynamic mobilisation of students' linguistic repertoires. As Jackson (2020) argues, communication across languages requires intercultural awareness and interpretation, while House and Kádár (2021) emphasises the social and pragmatic dimensions of multilingual interaction that automated systems cannot fully reproduce. That is to say that AI-assisted translation cannot replace the interpretative work performed by teachers and students in multilingual classrooms (Candé & Martinho, 2026).

Research on multilingual digital practices similarly suggests that technology can either support linguistic diversity or contribute to forms of digital monolingualism depending on how tools are designed and used (Hamman-Ortiz et al., 2025). The relationship between AI-assisted translation and plurilingual pedagogies is therefore complex. On the one hand, AI tools may strengthen plurilingual practices by supporting communication and improving access to academic content. On the other hand, these technologies may also reinforce dominant language practices if they primarily encourage translation into globally dominant academic languages (Schneider, 2022). Technologies intended to increase accessibility may therefore unintentionally reproduce existing linguistic hierarchies.

A related concern relates to the assumption that AI-generated translations are neutral representations of meaning. Although advances in neural machine translation have substantially improved the fluency of automated outputs, these systems continue to reflect the datasets, algorithms, and linguistic patterns on which they are trained. Freeth (2024) argues that AI-generated translations often conceal underlying linguistic and cultural biases by presenting outputs as objective and natural. This issue becomes particularly significant in multilingual universities because languages are not equally represented within AI systems. Languages supported by extensive digital resources generally receive more accurate translations, whereas smaller languages may receive more limited support. As a result, discussions of AI-assisted translation also raise broader questions concerning linguistic justice, representation, and inclusion within multilingual higher education (Helm et al., 2024).

Despite the rapid expansion of research on AI in higher education, important gaps remain regarding teachers' experiences of AI-assisted translation within multilingual universities. Existing studies have predominantly examined technological innovation, language learning, student engagement with generative AI, academic integrity, or general pedagogical applications (Bahroun et al., 2023; Darvishi et al., 2024; Fan et al., 2025). Comparatively less attention has been given to how teachers experience the use of AI and AI-assisted translation as part of their teaching in multilingual settings. This question is particularly relevant at institutions such as the University of Luxembourg, where multilingual communication constitutes an integral part of the educational process and is embedded in the university's identity, and where less widely represented languages, such as Luxembourgish, present additional considerations for AI-supported language mediation.

Teachers provide a valuable perspective because they occupy a central position in navigating the relationship between technological possibilities and pedagogical aims. They make decisions regarding how AI tools are incorporated into classroom communication, teaching materials, assessment, and interactions with students. Their experiences therefore provide insights into how AI tools are used, but also into how these technologies intersect with plurilingual pedagogies and broader educational aims within multilingual higher education.

Taking the above into consideration, the present study examines teachers' perspectives on AI tools within the multilingual context of the University of Luxembourg, with particular attention to AI-assisted translation as the most prominent theme emerging from the data. It explores how teachers experienced and negotiated the use of AI in their everyday pedagogical practices, including the preparation of teaching materials, making academic content accessible, communicating with students and colleagues across languages, and reflecting on students' engagement with AI technologies, before institutional guidelines for their use had been established and classroom practices had become more firmly developed.

THE MULTILINGUAL UNIVERSITY OF LUXEMBOURG

The University of Luxembourg provides a compelling context for examining AI-assisted translation and plurilingual practices in multilingual higher education. As the only public university in the Grand Duchy of Luxembourg, it operates within a national context where Luxembourgish, French and German hold official status, and English has become an important language of academic communication (Fehlen et al., 2021). Reflecting this context, the university's Multilingualism Policy (2020)¹ recognises English, French and German as working languages, alongside Luxembourgish as the national language, creating an institutional environment in which communication across languages is part of everyday teaching, learning and administration.

The university's multilingual orientation is accompanied by a strong international profile. At the time of data collection in 2023, approximately 6,000 students and 2,500 staff represented around 130 nationalities (University of Luxembourg, Facts and Figures, 2023), making it one of the most international universities in Europe. Communication across languages therefore forms part of everyday academic life, including classroom interaction, the preparation of teaching materials, and written communication between students and staff. Previous research has shown that teachers in this context encounter challenges associated with teaching in highly diverse classrooms and identify a need for greater institutional support and professional development to respond to multilingual and superdiverse learning environments (de Saint-Georges et al., 2020).

In a highly international institution, communication across languages is embedded in various academic activities, including the preparation and dissemination of teaching materials, written communication, and classroom interactions. The interview data analysed in this article were collected during a period when AI-assisted language technologies were becoming part of these everyday practices. Although AI-supported language tools were already used by teachers and students, the university had not yet introduced institutional guidance on the educational use of AI, nor did staff have institutional access to subscription-based versions of tools such as DeepL. This period therefore captures an early stage of AI integration, when teachers and students were navigating the possibilities and limitations of these technologies largely through their own experiences and emerging practices. Since then, the university, through its Institute for Innovative Teaching and Learning, has formalised its approach

¹ <https://www.uni.lu/wp-content/uploads/sites/9/2023/07/Multilingualism-Policy-English.pdf>

to generative AI. In February 2026, it introduced the ‘Guidelines on the Use of Generative AI for Teaching and Learning’², which provide a framework for the responsible integration of generative AI into teaching, learning and assessment. The subsequent introduction of institutional access to tools such as DeepL Pro illustrates the rapid development of AI-supported language technologies within higher education and further highlights the importance of understanding how such tools become integrated into multilingual academic environments.

Considering this background, teachers provide a particularly valuable perspective on the integration of AI, and particularly AI-assisted translation, into multilingual higher education. Positioned between institutional language policies and students’ learning experiences, they make decisions about communication, teaching materials, classroom interaction, and students’ engagement with AI. Their experiences therefore offer insight into how AI, and AI-assisted translation in particular, was incorporated into teaching practices and how these technologies were understood in relation to plurilingual pedagogies during an important period of transition.

METHODOLOGY AND DATA COLLECTION

This article draws on data collected as part of a broader doctoral project examining teachers’ experiences of teaching bachelor students in multilingual classrooms at the University of Luxembourg (Skourmalla, 2025). The original study explores teachers’ pedagogical practices alongside the opportunities and challenges associated with teaching at this multilingual setting, focusing on how linguistic diversity shapes classroom communication, participation, and learning. Although AI was not included as a separate topic in the interview guide, references to AI tools emerged repeatedly across participants’ accounts.

During the interviews, teachers referred to AI tools in relation to different aspects of the teaching process. However, two platforms appeared consistently across interviews. DeepL was discussed primarily in relation to multilingual communication, including preparing teaching materials, translating emails, and communicating with students. ChatGPT was mentioned mainly in relation to students’ production of academic work, assessment practices, and teachers’ responses to the growing use of generative AI. Although both platforms offer a much wider range of functions, these were the uses that participants themselves emphasised. The recurrence of these accounts suggested that AI-supported language mediation had already become part of teaching practices in this multilingual context and warranted further investigation.

The present article therefore develops this emergent theme from the broader project through a qualitative analysis of teachers’ accounts of AI tools, with particular attention to AI-assisted translation and language support practices. This focus follows the principles of inductive qualitative inquiry, whereby themes that emerge across participants’ accounts become the basis for subsequent analysis (Braun & Clarke, 2006). Accordingly, the study is guided by the following research question:

RQ: What meanings do teachers construct around the use of AI tools, particularly AI-assisted translation, in a multilingual higher education context?

The research question reflects the empirical focus of the data. It aims to examine how teachers experience the use of AI tools in their teaching practices, including communication, preparation of teaching materials, classroom interaction, and reflections on students’ engagement with generative AI. Importantly, the study explores to what extent AI became integrated into pedagogical practices during a relatively early stage of its adoption in higher education.

The study adopts a qualitative research design based on semi-structured interviews. An interview guide comprising 19 open-ended questions was organised into three sections: 1) participants’ professional and linguistic backgrounds, 2) language use in teaching, and 3) experiences of multilingualism and linguistic diversity at the university. To facilitate participation, the interview guide was developed in English and translated into French. Interviews were conducted in either English or French according to participants’ preferences. Ethical approval was obtained from the University of Luxembourg Ethics Review Panel (ERP) prior to data collection, and all participants provided informed consent before taking part in the study. The interviews lasted approximately 560 minutes in total. They were audio-recorded with participants’ consent and manually transcribed by the researcher for analysis.

Participants were recruited through purposive sampling to capture the multilingual teaching context of the university (Sankoff, 1974). The final sample consisted of 13 teaching staff members representing the university’s three faculties and a range of disciplinary backgrounds. The participants also reflected the institution’s multilingual profile. On average, teachers reported competence in approximately five languages, and nine participants indicated functional knowledge of all four institutional languages (English, French, German and Luxembourgish), although with varying levels of proficiency. Their experience at the University of Luxembourg ranged from less than five years to involvement since the institution’s establishment in 2003. Several participants had also held additional institutional responsibilities, including dean, vice-dean, and programme director. These positions informed their

² <https://www.uni.lu/wp-content/uploads/sites/9/2026/02/25170716/2026-Guidelines-AI-I2TL-16022026.pdf>

reflections on institutional policies and educational practices, complementing their accounts of classroom teaching. Nevertheless, throughout the article, participants are referred to primarily as ‘teachers’, as the analysis centres on their pedagogical practices and experiences of teaching in multilingual classrooms.

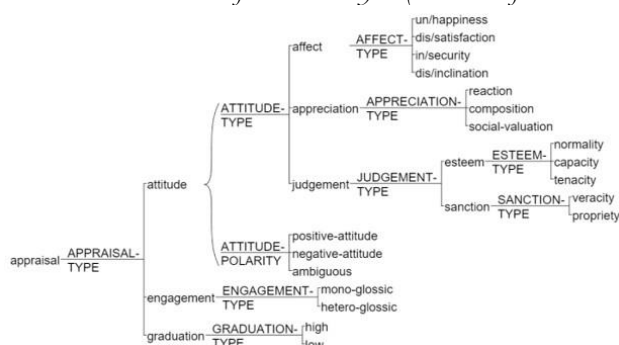
DATA ANALYSIS

The analysis was conducted in two stages. First, the complete interview corpus was analysed using reflexive thematic analysis (Braun & Clarke, 2006), following a predominantly inductive approach. Repeated reading and coding of the transcripts enabled the identification of recurring themes related to teachers’ experiences of teaching in multilingual classrooms. One of the themes that emerged concerned the use of AI tools within teachers’ practices. Participating teachers referred to AI in different ways, with discussions centring primarily on AI–assisted translation, especially through DeepL, and on generative AI, particularly ChatGPT, which was discussed in relation to students’ academic work. As this theme emerged prominently in the interviews and is also central to current discussions of AI in multilingual higher education, it forms the focus of the present article.

In the second stage, all excerpts relating to AI tools were analysed using the appraisal framework (Martin & White, 2005). The framework served as an interpretive lens for exploring teachers’ evaluations of AI tools and negotiated AI’s role within teaching. Particular attention was paid to how participants positioned AI in relation to communication across languages, classroom interaction, assessment practices, and students’ engagement with AI technologies. To support the annotation process, the data were coded in UAM CorpusTool (O’Donnell, 2012) using an appraisal scheme adapted to the aims of the study (Figure 1).

Figure 1

Annotation scheme used for data analysis (screenshot from UAM CorpusTool)



The analysis focused primarily on the appraisal systems of attitude, engagement, and graduation. Attitude captures teachers’ evaluations of AI tools, pedagogical practices, and institutional responses. For example, references to using AI to summarise texts as the ‘most efficient way’ were interpreted as a positive appreciation (social valuation), whereas statements such as ‘I authorise [students] to answer in another language’ were analysed as positive judgements that construct multilingual pedagogical practices as appropriate and legitimate pedagogical practices. Engagement examines how teachers positioned their own perspectives in relation to other voices such as students, colleagues, and institutional expectations, revealing how they negotiate the opportunities and challenges associated with AI use in multilingual higher education. Graduation captures the degree of emphasis attached to these evaluations through intensifiers and modifiers. Expressions such as ‘the most efficient way’ strengthened positive evaluations of using AI to summarise contents, whereas references to the ‘danger’ of relying on AI convey heightened concern regarding its possible implications for multilingual competence.

The analysis moved iteratively between individual linguistic choices and the broader interview context. Excerpts were analysed in relation to their surrounding context, with attention to how teachers constructed the role of AI within multilingual education. This approach connected teachers’ evaluations of AI with their pedagogical practices and experiences of teaching in a multilingual setting, which forms the central focus of this study.

FINDINGS

The interviews reveal that teachers frequently refer to AI tools, particularly for translation and facilitating comprehension across languages. Among the tools mentioned, translation tools such as DeepL are the most prominent, alongside generative AI platforms such as ChatGPT. Across interviews, these tools are primarily constructed as practical resources that help teachers navigate the linguistic diversity of the university context. As one teacher observes, ‘everyone looks for the most efficient way’. The expression ‘most efficient’ represents a strongly positive evaluation of AI–supported translation, positioning these technologies as valuable solutions to the practical communication demands of a multilingual academic environment.

For several teachers, teaching in multilingual classrooms at the University of Luxembourg inherently involves processes of translation and linguistic mediation. One of the participating teachers explains that in Luxembourg translation is embedded in everyday academic interaction (*« on vit au focus des traductions »*) and suggests that without such processes important elements of discussion are left out. This perception appears repeatedly in teachers' accounts, particularly when they describe adapting explanations or shifting between languages to support students' understanding. Another example comes from a teacher who talks about how translation becomes a pedagogical strategy to maintain accessibility in their classroom (*« parfois je sens qu'il y a des étudiants qui ne comprennent pas quelques nuances donc là je préfère traduire en anglais »*). The expression *« je préfère »* positions translation as a deliberate pedagogical choice, reflecting teachers' evaluations of when linguistic mediation is necessary to support participation.

Within this multilingual environment, AI-assisted translation tools are often described as practical resources that facilitate everyday teaching and communication practices. Teachers particularly emphasise the efficiency of applications such as DeepL in reducing the time required for translation tasks and managing routine academic communication across languages. One teacher highlights that the situation is 'even better today' because of 'translation software as DeepL where you can at least quite fast change an email in another language'. The comparison implied in 'even better today' constructs a positive evaluation of technological developments in relation to previous practices, whereas the intensifier 'quite fast' reinforces the practical value attributed to these tools. In this sense, AI-assisted translation is framed as a means of supporting existing multilingual practices.

Teachers' reflections on generative AI, particularly ChatGPT, introduce a more complex set of evaluations. In contrast to translation tools, which are primarily associated with communication support, ChatGPT is frequently discussed in relation to students' academic practices and concerns regarding assessment. Several teachers refer to students using ChatGPT 'to cheat', positioning the tool within a discourse of academic risk and inappropriate use. In response, some teachers describe adapting their assessment practices, including reintroducing exams in order to 'counterbalance ChatGPT'. Such accounts construct generative AI as a challenge requiring institutional or pedagogical responses.

Other teachers adopt a more exploratory position integrating ChatGPT into learning activities. An example comes from a teacher in the Faculty of Science, Technology and Medicine who explains that students were explicitly encouraged to use ChatGPT for an assignment and then collectively reflect on its possibilities and limitations. This teacher explains that students were asked to 'bring their own thoughts onto it', framing the tool as an object of critical engagement. These contrasting accounts illustrate how teachers negotiate the role of generative AI through different understandings of responsibility and academic practice.

More broadly, teachers' accounts suggest that such tools are not perceived as replacements for human linguistic competence, but as forms of pedagogical and communicative support. Teachers acknowledge that DeepL is 'better' and 'more precise', yet they consistently position it as a supporting resource. One of the teachers explains that they 'do not consume' the software but 'use it as a support' and 'take it responsibly', comparing its role to editing or spell-checking software. The repeated framing of AI as 'support' reflects a shared positioning in which teachers maintain human responsibility for evaluating and adapting AI-generated outputs. AI-assisted translation is therefore integrated into existing linguistic practices, where professional judgement remains central.

In parallel to these, several teachers emphasise the continued importance of human mediation and personal linguistic resources. A teacher characteristically mentions that 'we really rely on ourselves', highlighting teachers' perception of their own linguistic knowledge as essential to multilingual communication. The use of the collective pronoun 'we' also constructs a shared professional identity among teachers as mediators of multilingual interaction. Similarly, a music teacher refers to collaborative classroom practices in which students help with translation (*« les étudiants m'ont aidé aussi à traduire »*), illustrating how multilingual resources are distributed among individuals in the classroom and not just within technological tools.

Teachers with longer experience at the university recall earlier practices, when communication relied more on dictionaries and individual linguistic competences. An engineering teacher describes having been 'the communication point' before the widespread availability of digital platforms. These retrospective accounts are contrasted with more recent reflections on technological change. One teacher notes that 'you wouldn't go back to paper version anymore' and that Google and ChatGPT are 'changing the entire way we interact'. Such evaluations position AI as part of a significant transformation in academic communication, although teachers continue to emphasise that technological change does not remove the need for human interpretation.

At the same time, teachers' evaluations of AI-assisted translation become more cautious when discussing questions of meaning, linguistic nuance, and the broader role of languages in higher education. Although digital translation platforms are recognised as useful resources, teachers emphasise that communication across languages involves interpretative processes that extend beyond the transfer of words. A teacher explains that 'if you do a plain translation [...] at the end of the day it means nothing'. This strong negative evaluation of literal translation highlights the perceived limitations of automated systems and positions contextual understanding as an essential

component of multilingual communication. For this teacher, effective translation requires attention to disciplinary meaning, cultural references, and interactional contexts that cannot always be captured through automated tools.

Teachers also express concerns about the potential consequences of heavily relying on AI-assisted translation for language learning and multilingual competence. A teacher refers to the ‘danger’ that ‘we do not need to learn foreign languages’ because ‘the tools will translate for us’. The use of ‘danger’ represents an explicit negative appreciation of a possible future development, suggesting concerns that technological convenience could affect the value attributed to language learning. Their reflections reveal a distinction between using digital tools to support multilingual communication and allowing technology to replace engagement with languages.

Across interviews, teachers describe a range of strategies aimed at supporting participation among students with different linguistic backgrounds. Translation tools are therefore situated within a broader repertoire of practices that includes adapting language choices and drawing on students’ linguistic resources. Indicatively, beyond translating individual words or concepts during classroom interaction, teachers report adapting their language practices according to the linguistic composition and the needs of the class. One teacher in particular explains that the choice of teaching language depends on the profiles of students, stating that *« je verrai la population de cours s’il s’agit seulement de luxembourgeois je le ferai en luxembourgeois »*. This conditional formulation demonstrates how teachers position language choice as dependent on context and responsive to students’ linguistic repertoires. Similarly, several teachers describe flexible approaches to assessment and classroom participation. Indicatively, one teacher explains that during the exams they ‘authorise [students] to answer in another language’. The verb ‘authorise’ is particularly significant, as it frames multilingual responses as a legitimate pedagogical practice that teachers actively permit and support.

Teachers also describe multimodal and collaborative strategies to facilitate understanding across linguistic differences. In some disciplines, such as physics, teachers explain that diagrams and visual representations are used to support comprehension when language alone may create barriers. Others highlight the importance of peer collaboration. One teacher explains that ‘students might ask other students to read the essay’, illustrating how students’ linguistic resources become part of the collective learning process. Another teacher describes consciously adapting their own communication style by using ‘a simpler language’ to make academic content more accessible to students with different levels of linguistic competence. These practices position multilingual classrooms as spaces where meaning is constructed through multiple resources.

Overall, across the interviews, AI tools are valued for their efficiency, accessibility, and contribution to everyday communication, particularly in situations where linguistic differences may otherwise constrain interaction. At the same time, teachers maintain that multilingual higher education relies on linguistic awareness and pedagogical choices that extend beyond technological mediation. Their accounts position AI-assisted translation as a complementary resource, whose value depends on how it is integrated into broader approaches to inclusion and communication.

DISCUSSION

The findings demonstrate that AI has become embedded in teaching practices within the multilingual University of Luxembourg. Although AI encompasses a broad range of educational applications, teachers distinguish different AI technologies according to the educational purposes they serve. DeepL is primarily associated with linguistic mediation and communication support, whereas ChatGPT is discussed mainly in relation to students’ production of academic content. This distinction suggests that teachers attribute different pedagogical purposes to different AI tools according to the demands of teaching in this context and provide a situated understanding of AI use at a specific time in a multilingual higher education context, where language practices constitute a central dimension of teaching and learning.

Teachers describe using translation tools to prepare multilingual teaching materials, communicate with students and colleagues, adapt explanations during classroom interaction, and facilitate access to academic content. These practices demonstrate that teaching in multilingual contexts involves continuous processes of language mediation, where teachers adjust language choices according to students’ needs and the communicative demands of particular situations. The findings extend previous research on digital technologies in education (Erstad et al., 2021; Yao, 2025), showing how AI participates in the communicative practices through which multilingual teaching is enacted. Teachers’ positive evaluations of translation tools are closely connected to their practical usefulness, particularly their capacity to provide rapid translations and increasingly context-sensitive outputs, reflecting recent developments in neural machine translation (Freeth, 2024).

Nevertheless, the role of AI-assisted translation needs to be understood within the broader linguistic ecology of the University of Luxembourg. The institution itself creates a multilingual environment through its language policy and the presence of several institutional languages, yet multilingual communication is enacted through the practices of teachers and students. Teachers describe translation, language alternation, simplification of terminology, and the mobilisation of students’ linguistic resources as established elements of classroom practice.

AI-assisted translation enters this existing environment as an additional resource that supports communication across languages. Its significance lies in how it contributes to practices of linguistic mediation that already characterise multilingual teaching. This perspective reinforces understandings of multilingualism as a pedagogical resource and plurilingualism as an active mobilisation of multiple linguistic repertoires according to communicative purposes (Council of Europe, 2020; García & Wei, 2014).

Teachers' reflections also highlight the limitations of AI-assisted translation in multilingual educational contexts. Although participating teachers describe DeepL as increasingly precise and efficient, they consistently position it as a supporting resource that requires human evaluation. Several teachers compare AI-assisted translation with spell-checking or editing software, emphasising that they remain responsible for assessing the appropriateness of generated translations. Other accounts highlight reliance on teachers' own linguistic knowledge and on collaborative classroom practices, where students contribute their multilingual resources to support understanding. These accounts show how teachers and students engage with linguistic resources.

Moreover, these discussions bring the importance of mediation to the fore. One teacher's observation that 'plain translation' may ultimately 'mean nothing' illustrates concerns about approaches to translation that focus only on transferring words between languages. Communication in multilingual higher education involves disciplinary conventions, cultural references, contextual interpretation and interpersonal relationships that automated systems cannot fully reproduce. These findings connect with Jackson's (2020) discussion of intercultural communication as a process requiring interpretation alongside linguistic competence and with Venuti's (1995) emphasis on the interpretative dimensions of translation. Within multilingual classrooms, effective communication depends on teachers' and students' ability to evaluate, adapt, and contextualise AI-generated outputs.

The findings also complicate assumptions that AI automatically promotes inclusion in multilingual universities. Teachers frequently associate translation technologies with reducing linguistic barriers and facilitating participation. However, access to effective AI-based language support depends on the digital representation of specific languages. AI systems are generally more accurate for languages with extensive digital resources and large training datasets, whereas languages with less digital presence may receive less reliable support. This issue is particularly relevant in Luxembourg, where multilingualism forms a central element of institutional identity and where Luxembourgish has only recently become available through DeepL. Consequently, AI-supported multilingual communication requires attention to questions of linguistic representation and equity. Technologies designed to facilitate communication may reproduce existing asymmetries if some languages remain less visible within digital systems.

When it comes to the use of generative AI, several teachers express concerns about using ChatGPT, in particular, inappropriately during assessment, describing the need to reconsider examination formats. Others describe integrating ChatGPT into classroom activities by asking students to engage critically with AI-generated responses, compare these outputs with their own reasoning, and reflect on the possibilities and limitations of the technology. These contrasting accounts demonstrate that teachers do not construct AI as inherently beneficial or problematic. Instead, they evaluate specific applications according to their pedagogical purposes and practices in which they are embedded. This extends de Oliveira and Westerlund's (2023) argument that AI can support learning processes without replacing human expertise and aligns with research emphasising the importance of critical engagement with AI-generated content (Kumari, 2024; Klostermann & Etterlin, 2025).

Against this background, teachers' descriptions of plurilingual pedagogies become central to understanding the role of AI in multilingual higher education. Participating teachers report adapting their language choices according to students' linguistic repertoires, encouraging peer support, simplifying explanations, incorporating visual resources, and allowing multilingual forms of participation and assessment. These practices demonstrate that communication in multilingual classrooms emerges through the interaction of linguistic, social, and pedagogical resources. AI-assisted translation contributes to these practices by supporting access and communication across languages, yet meaningful learning continues to depend on collaborative processes of interpretation and knowledge construction. This reinforces perspectives that view plurilingualism as a resource for learning and participation (Council of Europe, 2020; García & Wei, 2014).

Overall, the findings suggest that multilingual universities should approach AI through the perspective of linguistic diversity and pedagogical mediation; AI tools can facilitate communication, support access to academic content, and provide new possibilities for learning activities, but their contribution still depends on how they are incorporated into existing practices that value negotiation of meaning, intercultural awareness, and human interaction. This is to say that in multilingual educational environments, AI is most productive when understood as part of a wider repertoire of resources through which teachers and students construct inclusive learning spaces. Their perspective challenges views of language as a barrier requiring technological solutions and instead positions linguistic diversity as a pedagogical and intercultural resource (Bulut Albaba, 2025). Maintaining these dimensions remains essential for developing plurilingual competence as academic and professional capacity.

CONCLUDING REMARKS

This study shows that AI tools, especially generative AI and AI-assisted translation tools, are increasingly integrated into multilingual higher education. Teachers primarily position these technologies as resources that facilitate multilingual communication and support pedagogical work. At the same time, they emphasise that meaningful communication continues to depend on human interpretation, intercultural understanding, and pedagogical judgement. In this view, the use of AI complements plurilingual teaching practices.

The findings also contribute to current discussions on AI and inclusion in multilingual universities by showing that technological innovation alone cannot guarantee equitable multilingual communication. The educational value of such tools depends on how they are integrated into teaching and institutional language policies that continue to value linguistic diversity, intercultural communication, and students' plurilingual repertoires.

The implications of the findings extend to institutional policy. The University of Luxembourg provides a context where multilingualism forms part of institutional identity and where AI increasingly mediates communication across languages. The interviews capture an early phase of AI integration, preceding the development of institutional guidance on generative AI and licensed AI-assisted translation resources. Future policies need to situate AI within broader discussions of inclusion and diversity in multilingual settings. Supporting teachers requires approaches that recognise the relationship between technological resources and plurilingual pedagogies that reflect broader educational commitments to equity, inclusion, intercultural communication and meaningful participation (Babaci-Wilhite & Mchombo, 2020).

That said, the study needs to be considered in light of its scope and context. The data come from a doctoral research project that examined teachers' experiences of teaching in multilingual classrooms. The findings provide insights into teachers' perceptions and meaning making during an early stage of AI integration at the University of Luxembourg and do not represent an evaluation of current AI practices or institutional developments. Subsequent developments, including institutional guidance on generative AI and access to licensed AI-assisted translation tools are indicators of the rapid evolution of this field.

Future research could further explore how these dynamics develop across different multilingual higher education contexts and disciplinary settings, as conceptions of language and communication may differ across academic fields. Greater attention to students' perspectives would also provide valuable insights into how plurilingual learners themselves engage with AI tools and translation practices. Overall, this study contributes to discussions on AI in multilingual higher education by highlighting relevant tools as complementary resources within broader ecologies of plurilingual practice. Its educational value ultimately depends on critical, contextualised, and human-centred approaches that strengthen linguistic diversity and meaningful participation.

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Ethical statement

The University of Luxembourg Ethics Review Panel received the request for the interviews with teaching staff on 23 May 2023 and approved it on 16 June 2023 with the code ERP 23–046 RELIDIMU1.

Competing interests

The author has declared no competing interests.

Author contributions

The author was responsible for all aspects of the research and manuscript preparation.

Data availability

The use and handling of the data were subject to conditions established by the Ethics Review Panel of the University of Luxembourg, which did not permit the sharing of the data with third parties. Therefore, the data analyzed in this study could not be made publicly available or shared.

AI disclosure

DeepL Write was used through the University of Luxembourg institutional account for linguistic revision and stylistic refinement of portions of the manuscript. The author retained full control over content and interpretation.

Biographical sketch

Argyro-Maria Skourmalla completed her PhD at the University of Luxembourg, focusing on teaching and learning in multilingual higher education. She is currently a member of the SciTeach at the University of Luxembourg and has recently started a postdoctoral project on Global Citizenship Education, working closely with primary school teachers. Her research interests include linguistic diversity, language rights, and teaching and learning in multilingual contexts.

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REFERENCES

- Adamakis, M., & Rachiotis, T. (2025). Artificial intelligence in higher education: A state-of-the-art overview of pedagogical integrity, artificial intelligence literacy, and policy integration. *Encyclopedia*, 5(4). <https://doi.org/10.3390/encyclopedia5040180>
- Angouri, J., & Delmas, M. (2026). Multilingualism in higher education: (What) do European university alliances deliver? *Journal of Multilingual and Multicultural Development*, 47(6), 3578–3596. <https://doi.org/10.1080/01434632.2025.2529947>
- Babaci-Wilhite, Z., & Mchombo, S. (2020). Language and culture in global literacy. In Z. Babaci-Wilhite (Ed.), *Learning critical thinking in 21st century literacies for multidisciplinary courses*, (pp. 256–274). Cognella.
- Babaci-Wilhite, Z., Gasparini, A., & Mchombo, S. (2025). Reimagined AI pedagogy for equity and diversity in multilingual classrooms: A case study of hope in comparative and international education. *Prospects*, 2025. <https://doi.org/10.1007/s11125-025-09720-4>
- Bahrour, Z., Anane, C., Ahmed, V., & Zacca, A. (2023). Transforming education: A comprehensive review of generative artificial intelligence in educational settings through bibliometric and content analysis. *Sustainability*, 15(17), 12983. <https://doi.org/10.3390/su151712983>
- Bayaga, A., & Mdzanga, N. N. (2026). AI-powered and emerging technologies for multilingual classrooms: Pedagogical innovations in higher education. *Critical Studies in Teaching & Learning*, 14(1), 205–212.
- Black, R. W., & Tomlinson, B. (2025). University students describe how they adopt AI for writing and research in a general education course. *Scientific Reports*, 15. <https://doi.org/10.1038/s41598-025-92937-2>
- Braun V., & Clarke V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Bulut Albaba, M. (2025, July 31). From language barrier to linguistic resource: Reframing multilingualism in HE. *Advance HE*. <https://www.advance-he.ac.uk/news-and-views/language-barrier-linguistic-resource-reframing-multilingualism-he>
- Candé, A., & Martinho, D. (2026). Artificial intelligence in translation and interpreting in education: A systematic review of trends, applications and challenges. *Information*, 17(6). <https://doi.org/10.3390/info17060543>
- Council of Europe. (2020). *Plurilingualism and pluriculturalism*. <https://rm.coe.int/common-european-framework-of-reference-for-languages-learning-teaching/16809ea0d4>
- Crompton, H., & Song, D. (2021). The potential of artificial intelligence in higher education. *Revista Virtual Universidad Católica del Norte*, 62, 1–4. <https://doi.org/10.35575/rvucn.n62a1>
- Darvishi, A., Khosravi, H., Sadiq, S., Gašević, D., & Siemens, G. (2024). Impact of AI assistance on student agency. *Computers and Education*, 210, 104967. <https://doi.org/10.1016/j.compedu.2023.104967>
- De Oliveira, L. C., & Westerlund, R. (2023). *Scaffolding for multilingual learners in elementary and secondary schools*, (pp. 1–6). Routledge.
- De Saint-Georges, I., Budach, G., & Tress, C. (2020). ‘We need to become ‘educational chameleons’: From unified to multiple norms in a multilingual and international higher education context. *European Journal of Applied Linguistics*, 8(2), 1–24. <https://doi.org/10.1515/eujal-2020-0011>

- Erstad, O., Kjällander, S., & Järvelä, S. (2021). Facing the challenges of ‘digital competence’: A Nordic agenda for curriculum development for the 21st century. *Nordic Journal of Digital Literacy*, 16(2), 77–87. <https://doi.org/10.18261/issn.1891-943x-2021-02-04>
- Fan, Y., Tang, L., Le, H., Shen, K., Tan, S., Zhao, Y., Shen, Y., Li, X., & Gašević, D. (2025). Beware of metacognitive laziness: Effects of generative artificial intelligence on learning motivation, processes, and performance. *British Journal of Educational Technology*, 56(2), 489–530. <https://doi.org/10.1111/bjet.13544>
- Franceschini, R., & Veronesi, D. (2013). Multilingual universities: Policies and practices. In S. Baroncelli, R. Farneti, I. Horga, & S. Vanhoonacker (Eds.), *Teaching and learning the European Union: Traditional and innovative methods*, (pp. 55–72). Springer Nature.
- Freeth, P. J. (2024). “Yes: I translated it!”: Visibility and the performance of translatorship in the digital paratextual space. In P. J. Freeth & R. Treviño (Eds.), *Beyond the translator’s invisibility: Critical reflections and new perspectives*, (pp. 147–172). Leuven University Press.
- García, O., & Wei, L. (2014). *Translanguaging: Language, bilingualism and education*. Palgrave Pivot. <https://doi.org/10.1057/9781137385765>
- Hamman–Ortiz, L., Poza, L., Palmer, D., Tian, Z., & Dougherty, C. (2025). Conceptualizing the transformativeness of translanguaging: A spectrum perspective. *The Modern Language Journal*, 109(4), 732–752. <https://doi.org/10.1111/modl.70011>
- Helm, P., Bella, G., Koch, G., & Giunchiglia, F. (2024). Diversity and language technology: how language modeling bias causes epistemic injustice. *Ethics and Information Technology*, 26, 8. <https://doi.org/10.1007/s10676-023-09742-6>
- House, J., & Kádár, D. Z. (2021). *Cross-cultural pragmatics*. Cambridge University Press.
- Institut National de la Statistique et des Études Économiques. (2021). *Linguistic diversity on the rise*. <https://statistiques.public.lu/dam-assets/recensement/publication-8/docs/rp08-diversity-linguistic-en.pdf>
- Jackson, J. (2020). *The Routledge handbook of language and intercultural communication* (2nd ed.). Routledge.
- Klostermann, A., & Etterlin, T. (2025). Learning with digital tools vs learning through digital tools in physical education: Impacts on student perceptions. *Current Issues in Sport Science*, 10(2). <https://doi.org/10.36950/2025.2ciss033>
- Kumari, S. (2024). Fostering critical thinking in the digital age. *Akshara Multidisciplinary Research Journal, Special Issue 13(V)*, 35–41.
- Lau, S. M. C., & Van Viegen, S. (2020). *Plurilingual pedagogies: Critical and creative endeavors for equitable language in education*. Springer.
- Martin, J. R., & White, P. R. R. (2005). *The language of evaluation. Appraisal in English*. Palgrave Macmillan. <https://doi.org/10.1057/9780230511910>
- O’Donnell, M. (2012). UAM CorpusTool (Version 2.8) [Computer Software]. <https://www.corpustool.com/index.html>
- Ou, A. W., Stöhr, C., & Malmström, H. (2024). Academic communication with AI–powered language tools in higher education: From a post–humanist perspective. *System*, 121. <https://doi.org/10.1016/j.system.2024.103225>
- Sankoff, G. (1974). A quantitative paradigm for the study of communicative competence. In R. Bauman & J. Sherzer (Eds.), *Explorations in the ethnography of speaking*, (pp. 18–49). Cambridge University Press.
- Schneider, B. (2022). Multilingualism and AI: The regimentation of language in the age of digital capitalism. *Signs and Society*, 10(3), 362–387. <https://doi.org/10.1086/721757>
- Skourmalla, A. M. (2025). *Linguistic diversity in teaching and in learning in multilingual higher education institutions: The case of the university of Luxembourg*. [Doctoral Dissertation, University of Luxembourg]. <https://hdl.handle.net/10993/67402>
- University of Luxembourg. (2023). *Facts & figures* [Infographics]. University of Luxembourg. https://www.uni.lu/wp-content/uploads/sites/9/2023/09/University_of_Luxembourg_facts_and_figures_2023.pdf
- Venuti, L. (1995). *The translator’s invisibility: A history of translation*. Routledge. <http://doi.org/10.4324/9780203360064>
- Yao, Z. (2025). Exploring the impact of interactive digital tools on learning outcomes in higher education. *International Journal of Inclusive Education*, 30(7), 1412–1445. <https://doi.org/10.1080/13603116.2025.2540821>
- Yuxiu, Y. (2025). Application of translation technology based on AI in translation teaching. *Systems and Soft Computing*, 24, 200072. <https://doi.org/10.1016/j.sasc.2024.200072>