



MACHINE TRANSLATION IN THE LANGUAGE CLASSROOM: A SYSTEMATIC REVIEW OF PEDAGOGICAL APPLICATIONS AND LIMITATIONS

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Abstract

This systematic review investigates the pedagogical applications and limitations of machine translation (MT) tools in language education, with a focus on empirical evidence published between 2020 and 2025. As tools like Google Translate and DeepL become increasingly integrated into language classrooms, this study synthesizes findings from 8 empirical studies, case reports, and theoretical discussions retrieved from major academic databases. Using a thematic analysis approach, the review examines how MT influences key aspects of language learning, including reading comprehension, vocabulary development, syntactic awareness, and multilingual communication. The findings reveal that MT tools offer practical advantages, such as accelerating comprehension, supporting initial writing drafts, and providing models for sentence construction. However, they also pose pedagogical challenges, including the risk of learner over-reliance, occasional inaccuracies in translation, and reduced opportunities for critical engagement with linguistic form. This review underscores the importance of fostering digital literacy and implementing pedagogically informed strategies when integrating MT into the curriculum. By identifying both the potential and the pitfalls of MT use, the study contributes a balanced framework to guide educators, curriculum designers, and researchers toward more ethical, effective, and context-sensitive applications of machine translation in language education.

Keywords: Machine Translation, Language Education, Educational Technology, Pedagogical Integration, Digital Literacy.

INTRODUCTION

The development of digital technology has had a significant impact on various aspects of life, including in the field of language education (Susiawati et al., 2025). The era of globalization and advances in information technology has encouraged the creation of various innovations that facilitate cross-cultural and linguistic interactions. One of the technologies that is increasingly being used in this context is machine translation (MT), with the most popular examples such as Google Translate and DeepL. Initially, MT was developed to facilitate cross-lingual communication in a practical everyday context, for example to assist tourists, business people, or internet users in understanding text or speech in a foreign language. MT is able to translate in seconds and continues to experience quality improvements thanks to the support of artificial intelligence and machine learning.

However, in recent years, the use of MT is no longer limited to these practical needs. This technology began to penetrate into language classrooms as one of the pedagogical tools. This is driven by a variety of factors, such as the ease of access because MT is available for free or at a low cost, the speed of generating adequate translations, and its ability to handle multiple language pairs automatically. In addition, the increase in digital literacy among students and

teachers has also made it easier to adopt this technology in the teaching and learning process.

On the one hand, MT offers a variety of positive potentials in language learning (Son et al., 2025). MT can help students understand foreign language texts faster, thus smoothing the reading process and expanding their horizons of knowledge. In addition, its use also contributes to enriching vocabulary, supporting writing in the target language, and providing examples of sentence structure in foreign languages instantly. MT can even act as a reflection tool for students to compare the translation results with the original text and identify errors or discrepancies in meaning.

However, on the other hand, the use of MT in language classes also raises a number of concerns that need serious attention. One of the main risks is the emergence of students' dependence on translation tools, so they tend to rely on technology without making an effort to understand the principles and rules of the target language in depth. This can have an impact on decreasing motivation to learn languages actively and independently. In addition, while the quality of MT continues to improve, translations are not always accurate or contextual, potentially leading to misconceptions and misunderstandings. Some complex sentence structures, idiomatic expressions, or cultural nuances often cannot be translated well by MT.

Therefore, it is important to understand how MT has been implemented in pedagogical contexts, the concrete benefits that can be obtained in learning practice, as well as the various limitations that educators and learners should anticipate. With a comprehensive understanding, language teachers are expected to be able to design MT integration strategies wisely, maximize their positive potential, and minimize their negative impacts. A systematic review of the application and limitations of MT in language classes is very relevant to provide evidence-based guidance in using this technology effectively.

Along with the increase in literature on this topic, a systematic study is needed to map the various pedagogical applications of machine translation (MT) in language learning and identify the challenges that arise in it. This systematic review is important not only to summarize the findings of previous research, but also to identify gaps in research that are still open and areas that need further exploration. With a comprehensive mapping of various approaches to the use of MT in the classroom, both experimental and those that have been applied in real life in learning practice, it is hoped that a clearer picture will emerge of the potential and limitations of this technology in the context of language education.

This kind of study is also very necessary to assist language education practitioners, such as teachers and lecturers, in making appropriate pedagogical decisions regarding the integration of MT in the classroom. Through a deep understanding of MT applications, educators can design learning activities that not only take advantage of the advantages of this technology, but also minimize risks that may arise, such as students' reliance on automatic translation or reduced critical thinking skills in the use of the target language. In addition, the results of this systematic study can be a valuable reference for curriculum developers to compile teaching materials and guidelines for the use of MT that are in accordance with the language learning objectives, as well as relevant to the needs of students in the digital era.

Furthermore, this research is expected to make an important contribution for researchers and academics in formulating the next direction of research related to the integration of technology in language education. Thus, the MT integration strategy designed will be more effective, wise, and evidence-based, so as to improve the overall quality of language learning. This study can also open a broader discussion about the ethics of using MT in education, the readiness of teachers and students to utilize this technology, and its implications for the expected achievement of language competence.

RESEARCH METHODS

This study uses a systematic review method to examine in depth the literature related to the application of machine translation (MT) in language learning, both in terms of pedagogical applications and its limitations. The study process is carried out by following structured and

transparent stages in order to produce a comprehensive and accountable synthesis. Data sources are obtained from various reputable academic databases, such as Scopus, Web of Science, ERIC, and Google Scholar, with a time range of article publication between 2020 to 2025 to ensure relevance to the latest MT technology developments. Keywords used in the search included "machine translation", "language learning", "pedagogical application", "language classroom", and "educational technology".

All articles obtained through the initial search stage are selected based on the inclusion and exclusion criteria that have been set. The inclusion criteria include original research articles, review articles, and case study reports that discuss the use of MT in the context of language education. Meanwhile, the exclusion criteria include articles that do not focus on an educational context, non-scientific articles, or articles that are not available in English. The collected data were then analyzed with a thematic approach to identify pedagogical application patterns, reported benefits, and constraints or risks revealed in each study. In addition, the methodological quality of each reviewed article is evaluated using appropriate assessment tools to make the synthesis results more academically robust. The results of this study are expected to provide a clear mapping of the practice of using MT in language classrooms as well as recommendations for future educational research and practice.

RESULTS AND DISCUSSION

Table 1. Synthesis of Recent Research on Language Learning, Translation, and the Use of Educational Technology

Title	Result
"Mistakes help us improve": Beliefs of high school students on English language learning (Wilang et al., 2025)	Although there was no statistically significant change in students' beliefs in language intelligence, language aptitude, and age sensitivity after the intervention, students generally maintained a growth-oriented belief. The intervention using the Language Mindset Toolkit, a six-session video program, slightly increased students' confidence that language learning intelligence and abilities could be developed. However, there has been a decline in confidence in language learning ability at all ages, suggesting that students are becoming more aware of the challenges of learning a language at a certain age. Qualitative findings from students' reflective journals reveal the positive impact of interventions on motivation, confidence, and acceptance of mistakes as part of the learning process. Many students state that they feel more confident, more open to development, and more motivated to continue improving their English skills. This study emphasizes the importance of the sustainable application of the principle of growth mindset in teaching practice, as well as the need for follow-up research with long-term interventions to support the development of language learning attitudes in various educational contexts.
Assessing the Use of ChatGPT as a Pedagogical Tool: A Small Study (Otto, 2024)	The use of ChatGPT in the context of higher education has great potential as a learning tool, although there are some limitations. This research was conducted in an honors level course at the University of Johannesburg, South Africa, involving 21 students. In this study, students were given tasks to use ChatGPT in various ways, such as producing essays, asking for feedback on their writing, and helping to choose books to review. The survey results show that the majority of college students consider ChatGPT to be a useful tool, especially in simplifying difficult concepts, providing a

	<p>starting framework for writing, and saving time. However, they also noted drawbacks such as inaccurate information, false references, and shallow results. Other findings suggest that students need training in prompting techniques to optimize the use of ChatGPT. In addition, clear institutional policies are needed regarding the ethics of using AI, including the definition of AI-based plagiarism. The study concludes that ChatGPT can be an effective pedagogical tool if used wisely and supported by clear training and ethical guidance, while still emphasizing the importance of critical thinking and active involvement in the learning process.</p>
Assessment of Barriers to Educational Technology Acceptance (“Assessment of Barriers to Educational Technology Acceptance,” 2024)	<p>This study does not report the results of field studies directly, but rather reviews the relevant literature and conceptual frameworks to validate survey instruments related to barriers to technology adoption by educators. The three main aspects analyzed include: technology adoption models such as TAM, TPB, UTAUT, and Concerns-Based Adoption Models; risk management approaches including the Fine-Kinney method, the Analytical Hierarchy Process, and the risk matrix; and validation of survey instruments including the validity of contents, constructs, criteria, test-retest reliability, and internal consistency. The study emphasizes that although many barriers have been identified before, existing research rarely incorporates all of these aspects thoroughly. Therefore, this paper suggests that the assessment of barriers to technology acceptance includes a comprehensive and systematic approach so that survey instruments can truly measure relevant and valid factors in the context of education.</p>
Augmented Linguistic Analysis Skills: Machine Translation and Generative AI as Pedagogical Aids for Analyzing Complex English Compounds (Loock & Holt, 2024)	<p>Machine translation tools (OTs) such as DeepL and generative artificial intelligence such as ChatGPT can assist students in analyzing complex noun phrases in English, especially in identifying head nouns. The research was conducted on two groups of French L1 students: the final bachelor's level and the master's level of professional translation. The results show that access to translation results from DeepL improves students' ability to identify head nouns, although it is not always consistent and sometimes even misleading, especially if the translated sentence structure does not match the student's mother tongue pattern. On the other hand, ChatGPT (especially the 4o version) is able to identify head nouns very accurately, even with just a simple command (prompt), while version 3.5 requires more detailed instructions to achieve equivalent results. These findings conclude that ChatGPT is superior in supporting linguistic analysis compared to OTs, but its use must be accompanied by digital literacy training and prompt engineering so that the results obtained are optimal and truly support the language learning process.</p>
Empowering Learners of English as an Additional Language: Translanguaging with Machine Translation (Kelly & Hou, 2022)	<p>The use of machine translation (MT) such as Google Translate has a positive impact in supporting the development of multilingual students' English language skills in secondary schools in Northern Ireland. The study involved 28 students and 14 teachers through group discussions and interviews, and revealed that students use MT flexibly and critically at</p>

	<p>different stages of their language development. MT is used as a basic communication tool for newly arrived students (survival tool), a tool for exploration as language skills begin to develop, and finally as a tool they critically control in the advanced stages. The students not only use MT to understand lessons, but also to communicate with friends, teachers, and family, as well as to translate messages between school and home. Although some teachers only utilize MT in the early stages of learning, students do demonstrate the ability to actively evaluate, edit, and utilize translation results throughout their learning journey. This study recommends that MT be integrated in translanguaging pedagogy as a legitimate digital tool, as well as the importance of collaboration between teachers and students to build the principles of responsible and empowering MT use.</p>
Pinoy Tells: The Typology of English Language Learning Strategies (Quinto & Cacanindin, 2024)	<p>University students in the Philippines use various English learning strategies that are categorized into three main components, namely intellectual, affective, and productive. Using a mixed approach (qualitative and quantitative), the researcher developed a TELLIS instrument based on data from 544 students for qualitative analysis and 502 students for quantitative surveys. The results revealed that most students consistently used strategies from the intellectual (such as understanding context and making inferences), and affective components (such as self-motivation and awareness of language use). However, strategies in the productive component, especially the practice and validation sections, are only used moderately. This means that students focus more on the process of receiving and understanding information (input) rather than producing language (output). These findings emphasize the need for a learning environment that supports the balanced implementation of all strategies, including encouraging students to be more active in using language through practice and feedback. TELLIS is expected to be a practical reference for educators and curriculum designers to adapt English learning methods to the needs and learning styles of students in the local context.</p>
Promoting Discussions About Diversity in the Language Classroom: Digital Storytelling as an Exploratory Case Study (Kamranian, 2024)	<p>The use of digital storytelling in learning French as a second language in the university environment has succeeded in increasing cultural awareness, language skills, and a sense of inclusivity among culturally and linguistically diverse students. The study was conducted at the University of British Columbia by involving nine students from different backgrounds who created digital story projects about their own identities and cultures as well as the diversity of Francophone cultures. The survey results showed that participants felt encouraged to reflect on their personal identities, learn about French culture from different regions, and better understand the diversity of their campus community. In addition, these activities also help improve reading, writing, and vocabulary skills in French, while strengthening a sense of belonging and empathy among participants. Most students find the project fun, meaningful, and broadening their horizons about cultural</p>

	<p>differences. These findings emphasize that digital storytelling is an effective and inclusive pedagogical approach to develop intercultural competence and build a more culturally responsive learning environment, especially in multicultural language classrooms.</p>
<p>Prosody in Mandarin: Clinical and Pedagogical Applications (Chen, 2024)</p>	<p>Prosodic features such as contrastive stress and tone in Chinese play an important role in communication, both in populations with communication disorders such as Parkinson's disease (PD) and in second language learners (L2 learners). The first study found that individuals with PD had difficulty producing contrast pressure, but their ability to recognize contrast pressure remained on par with that of a healthy control group. The second study showed that PD sufferers experienced impairment in the use of basic frequency (f0) cues, but still retained the use of duration as a prosodic cue. The results also revealed that the repetition task resulted in better prosodic performance than the elicitation task. The third study evaluated the effectiveness of real-time pitch biofeedback training in learning Chinese tones by English learners. Although no significant differences were found between the training methods, participants' initial abilities greatly affected the success of tone production after training, particularly for the fourth note. Overall, these findings support the development of prosody based assessment tools and interventions for toneal language speakers, both in clinical and pedagogical contexts, and demonstrate the importance of individualized approaches and tailored prosody training strategies.</p>
<p>To Translate or Not to Translate: The Case of Pedagogic Translation in the Foreign Language Classroom (Universidad de las Américas Puebla & Banitz, 2022)</p>	<p>Pedagogic translation is a legitimate and useful tool in learning a foreign language, although it has often been viewed negatively because it is equated with old methods that are considered non-communicative such as the Grammar Translation Method. The author emphasizes that one of the main sources of controversy is the unclear definition of "translation" in the context of language teaching, whether as a single method or as an auxiliary technique. Through historical studies and critical analysis of the pros and cons arguments, the author refutes various rejections of the use of translation in the classroom, such as claims that translation inhibits communicative skills or leads to dependence on the mother tongue. On the contrary, the authors show that pedagogical translation can improve communicative competence, help understand the structure of foreign languages, and encourage cross-cultural awareness and language strategies. The author also emphasizes the importance of using translation in a structured manner and adapted to the learning context. This article invites language educators and researchers to no longer avoid translation as an aid, but instead design a task-based approach that incorporates translation in an integrative and effective way in language teaching.</p>
<p>Educational Technology: A Bibliometric Approach (Gunes et al., 2023)</p>	<p>Research on educational technology (EdTech) has experienced rapid development, especially after 2000, and increased sharply during the 2019–2021 period due to the</p>

acceleration of digital transformation during the COVID-19 pandemic. The study analyzed 135,825 publications published between 1950 and 2021 in 156 Scopus-based journals, using a bibliometric approach. The results show that most of the publications are scientific articles, dominated by the fields of social sciences and computer science. The United States dominates both in the number of publications and author collaborations, followed by countries such as the United Kingdom, Canada, and Australia. The most frequently discussed topics in EdTech research include interactive learning environments, teaching strategies, pedagogical issues, virtual reality, distance learning, e-learning, and human-computer interaction. The most cited journals are *Computers in Human Behavior*, *Computers and Education*, and *Journal of Computer-Mediated Communication*. The research not only maps trends and relationships between researchers and countries, but also provides insight into the future direction of EdTech as well as the importance of collaboration and multidisciplinary approaches in developing effective educational technologies.

The results of this systematic literature review reveal various pedagogical approaches, technological integration, and psychological and social dynamics in language learning and the application of educational technology. Each study makes a distinct yet complementary contribution, which as a whole reflects the complexity and transformative potential in today's language and technology education. This discussion will group findings based on three main dimensions, namely: (1) students' beliefs and learning strategies, (2) the role of technology in language skill development, and (3) trends and challenges in the development of educational technology in general.

1. Student Learning Beliefs and Strategies

Psychological aspects in learning, especially *mindset* and learning strategies, are the main focus of research entitled "*Mistakes help us improve*" and *PINOY TELLS*. Both emphasized the importance of how students view foreign language learning as a process that can be developed sustainably. The first study showed that although there was no statistically significant change in students' confidence in language intelligence, interventions with the *Language Mindset Toolkit* were able to trigger increased confidence in learning abilities that can be honed, as well as strengthen motivation and acceptance of mistakes as part of the learning process.

In line with that, *PINOY TELLS*' research examines in depth the learning strategies used by students in the Philippines, and categorizes them into three domains: *intellective*, *affective*, and *productive*. An interesting finding is that students use more intellectual and affective strategies than *productive* strategies such as language practice. This shows the tendency that many language learners still focus on the passive aspects of language learning and are not yet optimal in developing expressive skills, such as speaking and writing. This signifies the importance of developing a learning environment that supports active practice, the use of feedback, and collaboration to encourage language production.

2. The Role of Technology in Language Skills Development

The integration of technology, especially artificial intelligence (AI) and *machine translation* (MT), has been a central theme in several studies. The use of ChatGPT as a pedagogical tool in the research *Assessing the Use of ChatGPT as a Pedagogical Tool* shows that students consider AI as an effective partner in understanding difficult concepts, speeding up the writing process, and simplifying information. However, limitations such as inaccurate information, false references, and the shallowness of the content indicate that AI like ChatGPT needs guidance on its use so that it is not mistaken for a source of absolute truth. Therefore, *prompt engineering* and digital literacy skills are

crucial for educators and students.

Meanwhile, the *Augmented Linguistic Analysis Skills* study highlights the comparison between translation tools such as DeepL and ChatGPT in helping students analyze the structure of the English language, especially complex noun phrases. The latest version of ChatGPT (4.0) has been shown to be able to identify *head nouns* with high accuracy, but its effectiveness depends on the type of instruction given. This shows that AI can not only be used as an information processing tool, but also as a means to develop advanced linguistic understanding, provided that users have the understanding and skills to use it appropriately.

In addition, the *Empowering Learners of English as an Additional Language* study showcased how *machine translation* such as Google Translate can be used critically and flexibly by multilingual students in secondary school. Instead of being a passive tool, MT is actively used as a means of communication, exploration, and reflection of language in diverse learning contexts. This research shows that translanguaging with MT can empower students at all stages of language development, and should not be limited to its use only in the early stages of learning. This reinforces the argument that technology is not a threat, but rather a tool that can be intelligently managed to support learning if accompanied by reflective policies and pedagogy.

3. Trends and Challenges in Educational Technology in General

From a more macro perspective, the research *Educational Technology: A Bibliometric Approach* and *Assessment of Barriers to Educational Technology Acceptance* provide a comprehensive picture of how educational technology is developing on a global scale. Bibliometric studies reveal a significant surge in EdTech publications after 2000, especially during the COVID-19 pandemic. Publications analyzed in the range 1950 to 2021 highlight that the United States dominates in terms of the number and collaboration of research, with key topics including interactive learning environments, virtual reality, e-learning, and teaching strategies. This shows that there is an increase in interest and urgency in integrating digital technology into the learning process, both online and offline.

However, the adoption of educational technology has not always gone smoothly. The *Assessment of Barriers to Educational Technology Acceptance* study reminds that many barriers to technology adoption have not been thoroughly analyzed. The lack of valid evaluation instruments, limited understanding of models such as TAM, UTAUT, and risk management approaches are barriers to understanding why some educators are still reluctant to adopt technology. Therefore, it is important for educational institutions to not only provide technology, but also accompany with comprehensive training, policy support, and assessments.

Meanwhile, two other studies – *To Translate or Not to Translate* and *Promoting Discussions About Diversity through Digital Storytelling* – show that both traditional and narrative-based approaches are still relevant. Pedagogical translation, which has been marginalized, has been proven to increase linguistic and cultural awareness if applied in a structured manner. Similarly, digital storytelling provides an inclusive platform for self-reflection and intercultural learning, while improving language skills integratively. Both highlight the importance of a humanistic approach to language learning, which cannot be completely replaced by technology, but can be enriched by it.

From the overall findings, it can be concluded that language learning and the development of educational technology are currently moving in a more adaptive, reflective, and collaborative direction. The successful implementation of new approaches – whether in the form of the application of AI, student learning strategies, or the integration of classical methods – depends heavily on how technology and pedagogy are positioned in a balanced and contextual manner. An educational ecosystem that supports active learning, critical thinking, and inclusive and ethical application of technology is needed.

Therefore, educators, researchers, and policymakers need to continue to evaluate and refine teaching strategies that not only keep up with technological trends, but also respond to students' psychosocial needs, develop digital literacy, and encourage authentic student involvement in the learning process. This study provides a strong conceptual basis for developing more meaningful and sustainable language and technology learning practices in the future.

CONCLUSION

The results of this systematic study show that machine translation (MT) has an increasingly significant role in language learning, with a variety of pedagogical applications that can support text comprehension, vocabulary development, linguistic analysis, and multilingual communication in the classroom. MT, along with other artificial intelligence technologies such as ChatGPT, has been proven to be able to assist students in exploring target languages, provided that its use is accompanied by adequate digital literacy and wise pedagogical assistance. However, the study also revealed various limitations, such as the risk of dependence on technology, the potential for misconceptions due to inaccurate translations, and the need for clear ethical policies and guidelines to prevent abuse.

The integration of MT in language learning demands a balanced and reflective approach, so that its positive potential can be maximized without sacrificing the development of deep and authentic language skills. In addition, an educational ecosystem is needed that supports the adoption of technology in an inclusive, ethical, and contextual manner, including training for teachers and students in using technology critically and productively. This study provides a conceptual and practical basis for educators, curriculum developers, and researchers to continue to develop learning strategies that effectively integrate technology and pedagogy, so as to respond to the challenges and needs of language learning in the digital era in a sustainable manner.

REFERENCES

- ASSESSMENT OF BARRIERS TO EDUCATIONAL TECHNOLOGY ACCEPTANCE. (2024, October 26). *Proceedings of the 21 St INTERNATIONAL CONFERENCE on COGNITION AND EXPLORATORY LEARNING IN THE DIGITAL AGE*. 21 st INTERNATIONAL CONFERENCE on COGNITION AND EXPLORATORY LEARNING IN THE DIGITAL AGE. https://doi.org/10.33965/celda2024_2024081012
- Chen, X. (2024). *PROSODY IN MANDARIN: CLINICAL AND PEDAGOGICAL APPLICATIONS* [Dissertation]. New York University.
- Gunes, U., Tonbuloğlu, B., Tonbuloğlu, İ., Yildirim, K., & Karataş, İ. H. (2023). Educational Technology: A Bibliometric Approach. *Marmara Üniversitesi Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi*, 57(57), 60–90. <https://doi.org/10.15285/maruaeabd.1148289>
- Kamranian, S. (2024). Promoting Discussions About Diversity in the Language Classroom: Digital Storytelling as an Exploratory Case Study. *Journal of Teaching and Learning*, 18(2), 73–93. <https://doi.org/10.22329/jtl.v18i2.8357>
- Kelly, R., & Hou, H. (2022). Empowering learners of English as an additional language: Translanguaging with machine translation. *Language and Education*, 36(6), 544–559. <https://doi.org/10.1080/09500782.2021.1958834>
- Loock, R., & Holt, B. (2024). Augmented linguistic analysis skills: Machine translation and generative AI as pedagogical aids for analyzing complex English compounds. *Technology in Language Teaching & Learning*, 6(3), 1489. <https://doi.org/10.29140/tltl.v6n3.1489>
- Otto, L. (2024). Assessing the Use of ChatGPT as a Pedagogical Tool: A Small Study. *Africa Education Review*, 20(6), 81–96. <https://doi.org/10.1080/18146627.2025.2471272>
- Quinto, J., & Cacanindin, M. (2024). PINOY TELLS: THE TYPOLOGY OF ENGLISH LANGUAGE LEARNING STRATEGIES. *Advanced Education*, 12(25), 106–124. <https://doi.org/10.20535/2410-8286.309352>
- Son, J.-B., Ružić, N. K., & Philpott, A. (2025). Artificial intelligence technologies and applications for language learning and teaching. *Journal of China Computer-Assisted Language Learning*, 5(1), 94–112. <https://doi.org/10.1515/jccall-2023-0015>
- Susiawati, I., Mardani, D., & Alhaq, M. F. (2025). THE ROLE AND STRATEGY OF DIGITAL TECHNOLOGY IN IMPROVING THE ARABIC LANGUAGE LEARNING PROCESS. *HUNAFa Jurnal Studia Islamika*, 21(2), 209–232. <https://doi.org/10.24239/jsi.v21i2.783>

- Universidad de las Américas Puebla, & Banitz, B. (2022). To Translate or Not to Translate: The Case of Pedagogic Translation in the Foreign Language Classroom. *Mextesol Journal*, 46(2), 1–9. <https://doi.org/10.61871/mj.v46n2-16>
- Wilang, J., Anthoney, J., & Sulankey, A. (2025). “Mistakes help us improve”: Beliefs of high school students on English language learning. *JET (Journal of English Teaching)*, 11(1), 92–104. <https://doi.org/10.33541/jet.v11i1.6717>