

Glossary Integration in Translation Classroom: EFL Pre-Service Teachers' Perspectives

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Abstract. The purpose of the study was to investigate pre-service teachers' perceptions about the incorporation of the Glossary as serve a role in area of translation as a supporting tool that is used in translation efforts where they are used to clarify meaning in the translation classroom at one of the private universities in East Java. The researchers conducted a narrative inquiry using a qualitative approach. Three EFL pre-service teachers who had finished a translation course participated in semi-structured interviews to gather data for this study. The results of this study show that technical and non-technical complexity affect how the Glossary is used in the Translation class. Along with to the complexity, the research declares that participants saw a notable influence following active use of the Glossary. The information provided leads to the conclusion that any technological integration should be viewed from various angles, as demonstrated in this study in the pedagogical aspect in translation classrooms.

Keywords: EFL pre-service teachers' perspectives; Glossary; Translation course

Abstrak. Tujuan dari penelitian ini adalah untuk menyelidiki persepsi guru prajabatan tentang penggabungan Glosarium sebagai alat bantu dalam upaya penerjemahan, yang digunakan untuk memperjelas makna di kelas Terjemahan pada salah satu universitas swasta di Jawa Timur. Para peneliti melakukan penyelidikan naratif menggunakan pendekatan kualitatif. Tiga guru prajabatan EFL yang telah menyelesaikan kursus penerjemahan berpartisipasi dalam wawancara semiterstruktur untuk mengumpulkan data untuk studi ini. Hasil penelitian ini menunjukkan bahwa kompleksitas teknis dan non-teknis berdampak pada cara penggunaan Glosarium dalam kelas Terjemahan. Sejalan dengan kompleksitas tersebut, penelitian ini menyatakan bahwa para partisipan melihat pengaruh yang signifikan setelah penggunaan aktif Glosarium. Informasi yang diberikan menyimpulkan bahwa setiap integrasi teknologi harus dilihat dari berbagai sudut pandang, seperti yang ditunjukkan dalam penelitian ini dalam aspek pedagogi dalam kelas terjemahan.

Kata kunci: Glosarium; kelas Terjemahan; perspektif guru prajabatan EFL

INTRODUCTION

As artificial intelligence (AI) technology continues to improve in the field of education, machine translators are becoming increasingly utilized in the learning process, particularly in English as a Foreign Language (EFL) classes that are centered on translation courses (Raygan & Moradkhani, 2022). Machine translation has significantly advanced; yet, it remains imperfect, particularly in settings necessitating profound comprehension of the individual language, culture, and context

(Bakpayev et al., 2022). Furthermore, machine translation cannot convey emotions, dialectics, linguistic elegance, and cultural interpretation. In academic contexts, especially translation classes, complete reliance on machine translators may lead to inaccurate or rigid translations. Non-native English students frequently encounter challenges in translating technical or specialized terminology. According to Tsai (2023), there exists inconsistency in term interpretation among non-native learners, which can diminish translation accuracy. In educational settings, where precision and comprehensive comprehension are of the utmost importance, this presents a significant challenge. An example frequently encountered by EFL translation students when depending on instant translation machines is the decline in the quality of learning and comprehension that students should achieve concerning their mastery of the target language.

Similar to other machine translation or electronic dictionaries, a Glossary serves as a resource in translation courses that offer standardized terminology; nevertheless, it differs from machine translation in that don't give instant text translation. Students who depend exclusively on computers sometimes accept automatic translations without comprehending the subtleties of language or context. In translation, comprehending context is essential, as the same word may possess various meanings based on its application. A glossary enables students to reference precise terminology and comprehend its use in many contexts, leading to a more accurate translation. Moreover, glossaries assist students in acquiring not only word meanings but also understanding their contextual applications, which is crucial in the field of translation.

Several studies have recognized utilization the Glossary in translation activities. In a study, Leyva (2019) reviewed the Glossary to translate the field of literature. The findings announce that the translator repeatedly performed cross-checks in the Glossary to achieve the translation target. According to his research, the Glossary is not extraneous to the translation process; rather, it serves as a valuable resource that offers alternative target terms and enhances the quality of translations, as well as a means to improve translation for better acceptance of literary works. Additionally, Leyva's findings highlight the significance of contextual comprehension of meaning and expressive capacity, as literacy is intrinsically linked to cultural and societal contexts.

A study performed by Azizi et al. (2022) focused on the Glossary form. Azizi et al. employed an experimental research methodology to examine the impact of the Dynamic Glossary (DG) format on 34 Iranian female ESP students at a Medical University to synergize in their study. By dividing 17 respondents into a treatment group and 17 others as a control group. The findings indicated that both the DG and non-DG groups successfully passed the post-directory test; however, the DG mediation group significantly surpassed the non-DG group in performance. One explanation for attaining such excellent results is that students in the DG condition engaged in extensive utilization of the Glossary. The results demonstrate that the utilization of a Glossary for medical students is highly effective, particularly for their L2 vocabulary acquisition.

In the same vein, Lee and Lee (2015) investigated the Glossary performance in the context of a first-year EFL student at a university in Korea. They discovered that the participants did not challenge the Glossary format, but rather other forms of output or information were presented. They disclosed the Glossary format investigated, and the findings revealed that two of the three formats (Frame-type Glossary and Tooltip-type Glossary) were deemed influential. This is because the presentation of the headline's message is more understandable to the participants. The success of a format in an EFL lesson is important for vocabulary acquisition. In brief, vocabulary is important because it serves as the foundation for effective communication. It demonstrates that the effectiveness of a format or

technique of teaching in an EFL class may be judged by the extent to which students can grasp, recall, and incorporate it into their vocabulary development portfolio.

Supporting previous studies, Calis and Dikilitas (2012) noted that providing translation tasks (without instant translation) to EFL students is a strong boost to their language acquisition. By the demands of understanding the context of the text, students will experience their areas of growth in acquiring the target language. It allows students to engage actively in translation activities, as well as forcing them to understand the meaning of each word and phrase in a particular context.

An electronic dictionary like the Glossary '*Pusat Bahasa Departemen Pendidikan Nasional Republik Indonesia*' discussed in this study, uses intelligence technology to guide the translator to words and phrases unfamiliar. The operation of the Glossary shown in this study is described as rather straightforward. Similar to a standard foreign dictionary, the Glossary additionally offers an Indonesian translation. It is essential to highlight in the Glossary of this edition the importance of understanding vocabulary usage across many fields, as well as including terms pertinent to the terminology of the word. The use of fields in the Glossary enhances value by allowing subsequent adjustments to the vocabulary's meaning based on the context of the translated sentence. For illustration, the '*lapisan*' in biology and mathematics is different. In biology, it is called "layer", while in mathematics it is called "stratum".

This study uses the Technology Acceptance Model theory proposed by Davis et al. (1989), which includes two primary indicators: perceived usefulness (PU) and perceived ease of use (PEU). These indicators influence teachers' attitudes toward technology and their level of technology utilization, as illustrated in Figure 1. In summary, PU is meant as the user's perception that it can improve the performance and efficiency of their performance. PEU refers to the user's perception that utilizing a specific technology would be simple or require minimal effort.

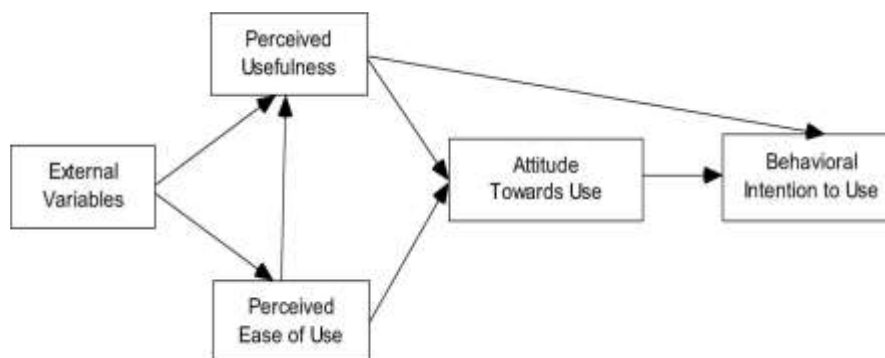


Figure 1 TAM's Frame (Davis et al., 1989) [Teo, 2010].

A study by Wang (2023) at a private university in Southeast China examined how in-service instructors perceived the efficiency of technology integration to their professionalism and student requirements. This indicates that a favorable perception and acceptance of technology, through numerous considerations, will significantly influence its users. In the actual setting of the TAM diagram presented, Wang indicated that in practice as an in-service instructor, the PEU had a minimal meaningful impact. During employment Educators perceive technology as a means to cultivate a more creative and dynamic classroom; thus, they regard it as mature, especially amongst the complexities of its regulatory utilization.

Notwithstanding the intricacy, educators perceive it as a catalyst for acquiring new knowledge. Consequently, as illustrated in Figure 1, the emphasis on PU will influence the degree of technology utilization. Nonetheless, prior research on diverse AI integrations has not yet examined the application of Glossary in Translation classes to enhance students' translation competencies in contextual word interpretation. These findings may enhance the production of reports on essential topics concerning technology integration, relevant to researchers and educators, while also enriching our understanding of how prospective EFL educators perceive technology and its influence on their professional development in translation through software application.

The AI explosion has been expanding rapidly, primarily emphasizing the supremacy of English as a foreign language in education. Nonetheless, there is a deficiency of research investigating pre-service teachers' perspectives on the integration of Glossary software in translation courses, informed by their usage experiences and perceived effects, as conceptualized by the Technology Acceptance Model theory posited by Davis et al. (1989). This study present aims to investigate the viewpoints of pre-service teachers enrolled in EFL programs at a private university in East Java regarding the incorporation of a Glossary in their translation courses.

METHOD

This study employed narrative inquiry (Polkinghorne, 1995; Connelly & Clandinin, 1990) with an emphasis on experience (Creswell, 2013), facilitating the revelation of unexamined underlying assumptions on the presented subjects. This study used purposive sampling to recruit prospective participants who meet specific criteria (Palinkas et al., 2015) established by researchers at a private university in East Java. The participant selection was conducted based on the following criteria: 1. The participants were EFL students who had completed the translation course at a private university in East Java, and 2. The participants had been verified as actively utilizing the 'Glossary' during translation tasks in the translation class. The sample of this research was 3 undergraduate students (age ratings 22-25).

This study conducted a series of semi-structured interviews for data gathering (Barkhuizen et al., 2014). Interviews were conducted in the participants' native language. This aimed to furnish comprehensive information and reduce communication faults that could lead to ambiguous data. The interviews provided participants the opportunity to convey their perspectives (Riessman, 2008). The data obtained from the interview results were subjected to thematic analysis (Braun & Clark, 2006). Braun and Clark (2006) mapped thematic analysis as a method to identify, analyze and report patterns (themes) in data. The interview results were subsequently categorized, analyzed, and reported according to specified themes, namely PEU, PU, and the Glossary's future perspectives.

This qualitative research was crucial to ensuring the credibility and reliability of a study. To build that confidence, the study used two strategies: member checking and peer reviewing (Lincoln & Guba, 1985). Participants were involved in this process by providing feedback on the researcher's interpretation through follow-up interviews. Additionally, this study involved ELT (English Language Teaching) experts who acted as independent parties to check and verify the results of the data obtained. They evaluated the data, analytical techniques, and results, offering insights and recommendations based on their experience. This enhanced the legitimacy of the study outcomes and guaranteed their acceptance and recognition within the academic community.

RESULTS AND DISCUSSION

The results derive from a narrative survey of three students who completed the translation course, focusing on their experiences with the Glossary through three emerging themes from the data. The pseudonyms Student 1, Student 2, and Student 3 are used in this study to protect the participants' identities and ensure their safety and comfort. The evidence indicates that their interpretations yield varied results. Data categorization and discussion sessions are organized around each theme.

Perceived Ease of Use

This section explains the first theme, the ease of utilizing Glossary. The collected data is represented in Table 1, and discussion sessions are organized below.

Table 1 Participants' Perspectives on Ease of Use of Glossary

No.	Participants	Perspectives on PEU
1	Student 1	I prefer to seek assistance from a buddy to facilitate the installation of Glossary on my laptop, rather than becoming distracted by the challenges it presents. This iteration of the Glossary cannot be installed on my smartphone.
2	Student 2	Installing this Glossary on my laptop and entering the word I'm looking for doesn't take much work, and I feel comfortable using it. In order to better learn the definitions and appropriate usage, I also keep combining it with other websites to gain a deeper understanding of the word.
3	Student 3	This Glossary may initially present challenges in usability, as it exhibits limited compatibility with existing devices. As we know that this version of the Glossary must be installed on a personal computer and is not compatible with smartphones.

Based on the data obtained from the three students, it is clear that two of the three students stated that they have significant difficulties in accessing the technology used. It reflects some of the obstacles they face, both technical and non-technical. Technical obstacles encountered include the installation process. On the other hand, the non-technical obstacle is the understanding of the features and functions of this Glossary. Apart from the main emphasis of this research on the first topic about perceived ease of use (PEU), only one student attained this element. The study felt obliged to include information on two of the three students regarding the focus of the research indicators on the PEU elements.

Student 1 and Student 3 identify several critical aspects that require additional scrutiny. Initially, Student 1 experienced difficulties configuring the Glossary application on his laptop, indicating a potential technical problem that may require external support for resolution. Student 1 shows initiative and self-awareness by soliciting aid from classmates instead of attempting to resolve the issue independently. As Student 1 pointed out, Student 3 also noted the usability difficulties encountered, that the recommended version of the glossary had to be installed on a PC rather than a smartphone, therefore stressing the restrictions of flexibility and the requirement of programs available on mobile devices. This quotation often implies that the suggested glossary application needs work in terms of compatibility, and accessibility to enhance the user experience and satisfy different needs. Aligned to Chun (2019) underscored that educators must consider not only the technological advancements available but also how the accessibility of technology might facilitate

students in attaining their learning objectives. Effective utilization of software and technology is essential for learning in educational environments.

Student 2 demonstrated a proactive and independent attitude to learning by choosing to seek additional information on the website. Instead of relying exclusively on a single source of information, Student 2 proactively pursues more credible sources to enhance her comprehension of the terms she will employ. It demonstrates robust research skills and the ability to tailor technology to meet educational requirements. Student 2's behaviors aligned with Ali's (2020) assertion that investigating the function of AI in education can facilitate students' accelerated acquisition of a certain language. The flexibility of digital resources to shift from one more appropriate source to another illustrates their adaptability and utility.

Student 2 expressed a willingness to pursue more detailed information to achieve a more thorough understanding of the studied material. Student 2's activity illustrates a shift toward a more responsive and adaptive learning environment that can be customized to meet each learner's needs (Darwin et al., 2024; Hwang 2014). Hwang (2014) emphasized that personalized coaching and support tailored to students' preferences is a primary goal of AI in education. Her decision to perform a web search for information reflects the findings of Darwin et al. (2024) and Hwang (2014). Additionally, it demonstrates the advancement of her information literacy abilities, encompassing her ability to evaluate and select more credible and comprehensive data sources, as well as her proficient use of technology to augment learning and understanding processes.

The choice of AI to be used in the classroom will therefore be made by the teacher, keeping in mind that, as Lee (2000) noted in his study, integrating any technology into the classroom is undoubtedly challenging. Moreover, as Student 1 said, this lexicon is inaccessible because of the program, which limits its usage to PCs. Lee declared in his study that the categories of common barriers in AI practitioners consist of financial barriers, availability of computer hardware and software, technical and theoretical knowledge, and acceptance of the technology.

Perceived Usefulness

The data that appears in the second theme represents that they agree that this Glossary has a significant impact on their English acquisition skills, which is L2. They claimed that although utilizing the Glossary presented challenges, they deliberately said that using this tool expanded their English vocabulary. Based on the reflection of this second theme, it reveals that their growth domain when struggling with the Glossary is in the area of vocabulary acquisition, and its adjustment in each specific context. Drawing from the accounts of Student 1, Student 2, and Student 3:

Table 2 Participants' Perspectives on the Usefulness of Glossary

No.	Participants' initial	Perspectives on PU
1	Student 1	Nearly all of the terms I looked for in the Glossary were relevant, and indirectly expanded my vocabulary about foreign words.
2	Student 2	Since this indirectly increases my vocabulary, I truly find this useful. More than quick translations ready for use, the intricacy of this artificial intelligence is quite helpful in the acquisition of vocabulary.
3	Student 3	The Glossary gave me clarity, consistency, and a better knowledge of vocabulary that often is complex, so much enhancing my learning process.

The participants concisely indicated that nearly all the terminology sought in the Glossary was comprehensible and pertinent, showcasing the quality of precise and instructive content along with practical applications suitable for learning or everyday use. These findings suggested that the use of the Glossary indirectly enhanced students' comprehension of new vocabulary, hence illustrating the tool's efficacy for self-directed learning and vocabulary enhancement (Hassan Taj et al., 2017). The Glossary facilitates students with comprehension of unfamiliar terms, emphasizes the tool's essential role in language acquisition, and offers clear explanations.

The assertions by Student 1, Student 2, and Student 3 that the Glossary indirectly enhanced their vocabulary knowledge exemplify the tool's role in aiding learning by acting as a reference source that aids users in comprehending and acquiring new terminology. The overall favorable student experience boosted their enthusiasm and pleasure with the learning process, making the Glossary a useful resource for vocabulary acquisition and language comprehension. This quote demonstrates that the Glossary is an effective and useful tool for learning new words. The Glossary's relevant material assisted them in understanding and using new terminology in appropriate circumstances, while the growth in vocabulary knowledge demonstrates that the tool effectively promoted self-directed learning.

This Glossary app provides significant benefits for students in vocabulary expansion, which is an essential element in a translation project or their L2 acquisition. By providing new diction continuously, the app allows students to continuously expand their vocabulary. There exist other terms with identical meanings that are spelled differently and utilized across diverse disciplines. The incorporation of this glossary enables students to categorize the utilization of suitable vocabulary forms or phrases that closely correspond to their intended context. This process not only enriches vocabulary but also helps students understand the various nuances of the meaning of words, idioms, and expressions that may not be used in daily life. By using the most suitable and precise terms when translating books, this greater vocabulary mastery helps students to better portray the original context and intent of the source material.

Moreover, Leyva (2019) research underlined the need of vocabulary diversity to guarantee the correctness and depth of translation. Leyva claims that a thorough awareness of many words and phrases helps translators to capture and transmit cultural nuances and contexts that can be missed if they just translate straightforwardly. Therefore, using the Glossary app helps students' vocabulary grow while simultaneously improving the proficiency of their translations. The resultant translation helps readers grasp the content in depth and more broadly since it is more meaningful and more suited to transmit the original message, particularly in specialized domains such as scientific, medical, or cultural contexts.

Outlook on Glossary in Future

In the last topic description, students 1, 2, and 3 realized that others should also experience the influence they felt about this glossary. Therefore, even if the Glossary is inspired by archaic technology, they believe that it is not bad to keep it among an increasingly frenzied growth of artificial intelligence. This glossary is meant to be presented to the general public, not only the domain of EFL learners, based on data of Student 1, Student 2, and Student 3. Given their perceived value and influence, they advise ongoing, long-term Glossary integration in many spheres of education and social life. They think that the glossary might be a useful instrument for learning not only for English language learners but also for others in many disciplines including professionals.

Table 3 Participants' Perspectives on Future Use of Glossary

No.	Participants	Perspectives on Glossary in Future
1	Student 1	Actually, Glossary terms are not limited to use in education. Although she/he is not an expert, there are numerous disciplines that also very need the function of Glossary. In order to promote the achievement of learning objectives, I believe it would be preferable to select an AI version that is simpler to integrate in translation course.
2	Student 2	I strongly support the introduction and integration of the Glossary in every Translation class. Moreover, the glossary can also be used not only for EFL classes. With the feature of providing words or phrases that are tailored to certain fields, it can provide benefits to its users.
3	Student 3	While the glossary does not assist with grammar, it helps refine word selections to align with the relevant context. I perceive the Glossary as a resource that requires ongoing care and maintenance, particularly in the domain of professional translation, to preserve the nuances of meaning pertinent to specific circumstances.

The results from this theme suggest that a glossary serves as an inclusive resource, facilitating comprehension of complex languages for individuals from diverse backgrounds and proficiency levels. Students with an English background may struggle to comprehend technical or specialized jargon utilized in English courses. Surmounting this barrier will facilitate equitable access to knowledge for all pupils via a lexicon that provides clear and precise explanations and definitions. Moreover, the glossary facilitates autonomous learning, particularly when students seek and comprehend unfamiliar terminology without incessantly depending on educators, classmates, or machine translation devices.

In addition to the essence of future feasibility, Student 1 stated that if the Glossary is reintroduced in translation classes, it would be better to choose a type of Glossary that is easily accessible and makes EFL students more comfortable using it. This is to minimize students' distractions with the access process they will go through. Lee and Lee's (2015) study, which compares three distinct types of glossaries, supports this assertion. Based on their research, pupils typically select the user-friendly, straightforward Glossary format.

On the other hand, Student 3 contends that the glossary is a unique terminology dictionary and, naturally, deserves to be maintained. However, he highlighted that maintaining the Glossary he meant was for the dominance of professional translation. In the field of professional interpretation, it cannot miss out on the small details of digestion related to a particular context. A glossary is a useful tool for staff workers to quickly access and understand this terminology (Westerhout & Monachesi, 2008), which in turn can increase productivity and reduce errors caused by misinterpretation. Thus, an effective Glossary not only supports inclusion but also contributes to improving the overall quality of education and professionalism. (Westerhout & Monachesi, 2008; Leyva, 2019; Azizi et., 2022; Lee & Lee, 2015).

The results of this study indicate that the utilization of the Glossary had a substantial effect on three pre-service teachers, particularly in the domain of vocabulary acquisition. The findings validate prior studies and enhance our comprehension of aspiring EFL educators' perspectives on technology and its influence on their professional growth in translation through software utilization. Furthermore, participants encountered the intricacies of the employed technology (Glossary). The utilization of a

glossary is inherently linked to the intricacies of both its technical and non-technical dimensions. According to the Davis framework referring to the TAM model (figure 1), it is evident that perceived usefulness (PU) has a direct correlation with the extent of technology utilization, irrespective of the perceived ease of use (PEU) of the technology. This aligns with the findings of research conducted by Wang in 2023.

Regardless of the data presented, the introduction or use of the Glossary in the translation class is all back to the responsible teacher's policy. In its implementation, the educator does not merely introduce the Glossary or other technologies in the classroom without careful consideration of several factors. This involves assessing students' requirements, evaluating the integration of technology into the educational process, and examining the efficacy of technology in attaining learning objectives. The efficacy of specialized technology will significantly influence outcomes when applied appropriately and as required (Ali, 2020). In addition to Glossaries consisting of various forms (e.g. Lee & Lee, 2015; Chen & Yen, 2013; Wang and Lee, 2021; Azizi et al., 2022), basically all of them aim to help EFL students in finding, understanding, and facilitating students in acquiring vocabulary that they are not familiar with. The diversity of information that can be packaged quickly and easily is one of the preferences for considering the use of Glossary.

CONCLUSION

This study revealed several significant conclusions based on a survey of EFL students' attitudes regarding the use of Glossary in translation courses. Initially, every technology presents both technical and non-technical challenges. The Glossary application faced technical difficulties during laptop installation, exposing software compatibility issues with mobile phones. This highlights the importance of strong technical assistance and customizable software to improve accessibility in educational settings. Furthermore, not all associated programs will adequately address diverse learning needs. Therefore, seeking more particular information online is advisable, as it reflects independence, proficiency in research, and adaptability in using digital resources. Secondly, utilizing the Glossary has led to considerable advancements in vocabulary enhancement. This software enables students to expand their vocabulary through the provision of words and phrases.

Furthermore, there exist alternative phrases with identical meanings that are spelled differently and employed in various circumstances. This approach enhances pupils' vocabulary and fosters an appreciation for the subtleties of meaning in words, idioms, and expressions that may be absent in everyday life. As we acquire additional vocabulary, our ability to express and understand a problem will improve. Not all technologies are suitable for classroom application; instructors must consider factors such as student requirements, course objectives, personal values, and available resources. They must facilitate skill development, reinforce the curriculum, and contribute to the attainment of specific learning objectives. The successful incorporation of technology relies on educators' pedagogical beliefs, proficiency with technological tools, and ongoing professional development. Adequate gadgets, reliable internet, and technical support are essential, along with a conducive learning environment and maintenance. When technology is purposefully employed to directly enhance educational objectives, it can be integrated successfully. Consequently, making intentional, educated decisions ensures that technology enhances teaching and meets diverse student needs.

However, this study has several limitations. The primary limitations of this study are its reliance on Davis's theory and its exclusive examination of the perceptions of translation students, particularly within the EFL educational context. Consequently, future researchers may adopt an alternative focus,

utilize a different translation apparatus, or employ a distinct version of the glossary, enabling for a more thorough and creative exploration of the potential applications of glossaries and AI technologies for general academic purposes, beyond merely enhancing L2 proficiency. This research design employs a narrative inquiry, wherein the data collected and reported are based on participant stories, and the data results are presented as descriptions rather than symbols or numerics, future researchers may also use a series of different method designs to obtain more comprehensive conclusions. Additionally, this study used a qualitative method that is subjective and unique, the participants were chosen based on specific criteria to find the most authoritative (containing accurate information), which led to a small sample size. Nonetheless, member checking and peer reviewing can still maintain the study's credibility by guaranteeing that the data accuracy can be considered.

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