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Research Article

Unpacking Chinese University EFL Teachers' Unwillingness to Use Corpus in Translation Classroom Teaching

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Abstract: Corpus is beneficial for promoting students' discovery learning and deep learning in the translation teaching context. However, it remains under-utilized by university English as a Foreign Language (EFL) teachers. Understanding the reasons of EFL teachers' reluctance to use corpus tools is essential to maximize the pedagogical potential of corpus-based instruction. Therefore, this study conducted semi-structured interviews with four EFL teachers from a prestigious foreign language university in China to explore the reasons behind. The interview data revealed that Chinese EFL teachers generally maintained positive attitudes toward corpus, but concerns emerged when they implemented corpus in translation teaching, which gradually diminished their using intentions. The most critical issue was poor facilitating conditions, including unstable Internet connections, limited teaching hours, and training support that lacked relevance and accessibility. Insufficient corpus literacy in knowledge of corpus and perceived complexity of corpus tools also posed substantial challenges. In addition, inadequate design thinking, especially in addressing diverse student learning needs, further weakened teachers' willingness to adopt corpus in translation teaching. Lastly, concerns were raised about limited affordance of corpus tools in supporting diverse language uses, suggesting a mismatch between the tools and pedagogical needs. The findings contribute to the technology adoption literature by situating it within the corpus-based instructional context. They underscore the importance of targeted professional development for teachers and inform policy-making on resource allocation to support effective integration in language education.

***Keywords*:** unwillingness, corpus, English as a Foreign Language (EFL) teachers, China, translation

1. Introduction

A corpus is a collection of authentic written or spoken language expressions that provides foreign language learners with authentic language records (Cook, 1998) and enables teachers and learners to clarify, set priorities, reduce exceptions, and liberate creativity (Sinclair, 1998). Compared with traditional translation teaching methods, corpus integration supplements the deficiencies of dictionaries (Zhao & Mu, 2019), improves the translation accuracy and thus, cultivates talents who better meet the needs of the translation market (Yu, 2020). Additionally, the use of corpus enables students to engage in the translation process actively (Alhassan et al., 2021), facilitate their Data-Driven Learning (DDL), discovery learning, and research on language usage (Johns, 2002), it also develops their analytical skills in translation (Yang & Adnan, 2025).

Despite the above-mentioned advantages suggested in existing studies, few English as a Foreign Language (EFL)

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teachers are aware of the availability and affordance of corpus in the translation teaching and thus, many of them did not utilize corpus in teaching or use them at a limited level (Eslek-Onur & Tosun, 2023; Sun & Park, 2023). This would lead to damage in the efforts to keep teaching content up-to-date, leading to stagnation in the development of teaching quality. Therefore, it is very necessary to unpack EFL teachers' perceptions of corpus integration in translation teaching (Huang, 2018; Römer, 2011).

This study adopted semi-structured interviews to inquire into EFL teachers' perceptions of using corpus in translation teaching. In doing so, this study enriches people's understanding of corpus-based pedagogy and provides practical suggestions to language teachers, curriculum designers in the teacher training programs and policymakers to make informed decisions. Two research questions are posed:

1. What are Chinese university EFL teachers' overall attitudes toward adopting corpus tools in translation teaching?
2. What barriers hinder the widespread adoption of corpus-based pedagogy in translation education?

2. Literature review

2.1 *Corpus-based pedagogy in translation classrooms*

In language teaching, Corpus-Based Pedagogy (CBP) indicates teachers' ability to integrate corpus linguistics technology into language teaching to facilitate students' language learning (Ma et al., 2021). Over the past few decades, the application of corpus-based pedagogy in translation classrooms has attracted increasing attention, owing to its distinctive advantages. Bowker (2001) emphasized that specialized corpus can support terminology research and contextual usage, enabling translation students to make more informed lexical and syntactic choices. Sun and Park (2023) demonstrated that learners using corpus showed increased accuracy and idiomaticity in their target language output. Likewise, Alhassan et al. (2021) found that translation students who consulted corpus were better at identifying genre-specific collocations and avoiding literal translations. Despite these advantages, many EFL teachers continue to totally rely on traditional methods in translation classroom teaching, leaving corpus as an underutilized pedagogical resource (Bernardini, 2000; Emir & Saral, 2025). As Emir and Saral (2025) noted that, although corpora can effectively support the development of students' language skills, many EFL teachers only use them sparingly and fail to integrate them systematically into their instruction.

In summary, corpus-based language teaching offers rich opportunities for enhancing translation education. However, its effective implementation is always hindered (Alsehibany & Abdelhalim, 2023; Emir & Saral, 2025). Therefore, this study aims to systematically unpack the barriers that language teachers perceived that prevent the integration of corpus tools into translation curricula.

2.2 *Barriers for technology integration*

Although teachers recognize the importance of using technology in teaching (Huang et al., 2021), many barriers hinder their implementation efforts. Ertmer (1999) identified two types of barriers that hinder teachers' technology adoption: first-order and second-order barriers. First-order barriers refer to external obstacles typically caused by the insufficient provision of resources in the classroom environment (e.g., equipment, time, training, and support). The underlying assumption is that once sufficient resources are obtained, integration will follow, supporting the viewpoint that technology integration depends on full access to hardware and software. Since first-order barrier is easily measurable and relatively easy to eliminate, most early integration efforts focused on eliminating these barriers (Abedi & Ackah-Jnr, 2023). However, as first-order barriers diminish, second-order barriers (e.g., individual teaching beliefs, technology efficacy, willingness to change) encompass pedagogical, psychological and emotional factors that are rooted in teachers' underlying beliefs. Compared to the first-order barriers, second-order barriers are more abstract, personal and therefore, are more difficult to conquer, posing greater difficulties to deal with (Dede, 1998). Later, Tsai and Chai (2012) proposed the concept of the third-order barrier, suggesting that in addition to the first and second-order barriers, teachers' design thinking plays an important role in technology integration. This also highlights the importance of teachers' Technological Pedagogical and Content Knowledge (TPACK) in enabling effective technology integration in teaching practice (Huang et al., 2024).

The above-mentioned three layers of barriers provide a useful lens for the current study to analyze EFL teachers'

hesitance or reluctance to adopt corpus in translation teaching. Therefore, this study adopted this framework to examine the nuanced, context-specific obstacles perceived by EFL teachers that hinder effective corpus integration in translation education.

3. The present study

This study adopted semi-structured interviews to unpack Chinese university EFL teachers' perceptions to use corpus in translation classroom teaching. A qualitative design is particularly well-suited for exploring phenomena that are complex, context-dependent, and not easily quantifiable, such as teachers' beliefs, attitudes, and decision-making processes (Strauss & Corbin, 1998). Since perceptions are often implicit and shaped by personal and institutional experiences, qualitative methods allow researchers to obtain deeper insight. Semi-structured interviews, in particular, offer the flexibility to probe into individual responses in greater depth and adapt questions during the interview process, enabling researchers to explore emergent themes and clarify ambiguous answers.

3.1 *Participants and setting*

Four EFL teachers from a prestigious foreign language university in Shanghai, China were invited to participate in the semi-structured in-depth interviews. Participants were selected using a purposive sampling to ensure that participants met the inclusion criteria of the study's focus. The purposeful selection was guided by the following considerations. First, participants must have completed at least one semester of translation classroom teaching within the past three years. Second, they should have used corpus tools in translation instruction to some extent. Third, given that language teachers' technology adoption may be influenced by age (Huang et al., 2019; Mannheim et al., 2023), the study included participants from different age groups. Finally, participants varied in other personal and professional factors, such as gender, academic rank, and technological experience, to capture a diverse range of perspectives. All participants teach undergraduate English majors, ensuring consistency in disciplinary and learner contexts. Table 1 presents detailed background information about the participants.

Table 1. Demographic Information of Participating Teachers

Teacher	Gender	Age	Tile	Translation Teaching Experience	Interview type
A	Female	40-50	Associate professor	23 years	Online
B	Female	40-50	Lecturer	21 years	Face-to-face
C	Male	30-40	Lecturer	15 years	Online
D	Male	20-30	Teaching assistant	1 year	Online

3.2 *Instrument and procedure*

Based on literature understandings (e.g., Alhassan et al., 2021), this study designed an interview protocol (see appendix) to guide semi-structured interviews, which were conducted individually. The interview questions were designed based on the framework of the three-order barriers theory, namely, from the first-order (external conditions) to the second and third-order (self-reflection) barriers, this logic also reflected a shift from descriptive to reflective questioning, aligning with the natural flow of participant responses. For first-order barriers, the focus was on external challenges in the integration process: "What do you think are the main difficulties in integrating the corpus into classroom teaching? (e.g., students' skill levels, limited time, technological resource issues, curriculum setting problems). For second-order barriers, questions explored beliefs and attitudes to corpus-based pedagogy (e.g., "Do you

plan to further attempt to integrate the corpus into classroom teaching in the future?"). For third-order barriers, the focus was on instructional design thinking (e.g., "How do you usually use a corpus? Is it for your own research or for teaching preparation?").

All the interviews were conducted between April and May 2024. Before the formal interviews began, the first author conducted a pilot interview with one participant to evaluate the clarity and appropriateness of interview questions. Modifications were made based on his responses. The first author then conducted a face-to-face interview with one participant, and online interviews with three participants via Tencent Meeting (an online tool with audio and video functions). With the participants' consent, all the interviews were recorded and transcribed word by word so that the two authors were able to analyze data to generate themes.

In general, the interviews lasted about 30 minutes, while some were extended to around 50 minutes as additional questions were asked and perceptions were shared in the interview process. Before the formal interviews, all the participants were informed of research aims, the use of pseudonyms to protect participants' privacy, and their right to withdraw at any stage of the study.

3.3 *Data analysis*

Data analysis followed the grounded theory approach, encompassing open coding, axial coding and selective coding. Firstly, the first author transcribed all the interviews verbatim. Secondly, the two authors independently coded data, codes were reviewed and discussed between the two authors to achieve consensus. The coding process was guided by the three-order barriers of technology adoption framework as mentioned in the literature review section. Specifically, codes were generated into themes to reflect first-order (poor facilitating conditions), second-order (insufficient corpus literacy), and third-order (inadequate design thinking) barriers. Data analysis revealed new themes, such as task-technology mismatch, which extended the original model. The coding process is illustrated in Figure 1 (Appendix B).

4. Findings

4.1 *Teachers' proactive attitude toward corpus integration*

In the interview, all participants believed that technology can greatly enhance teaching efficiency and provide learners with readily accessible information and knowledge (Paswan & Wittmann, 2009). All the participants mentioned that they were working to build student-centered classrooms, and using corpus in classroom teaching can undoubtedly help achieve this goal by facilitating discovery-based learning and DDL.

> *I certainly do not reject it. I appreciate it and seize opportunity to introduce it to my students, though I did not apply it to my teaching practice. (From Teacher A)*

> *Yes, absolutely. I am someone who embraces technology, and I am very willing to learn, especially knowledge related to technology. (From Teacher B)*

> *Yes, actively embracing it. I am one of the first teachers in my grade to start using new technology. Previously, when our department just launched a reading platform, I began piloting it in my class. The platform had a machine grading function, which I mainly used to correct students' essays. (From Teacher C)*

> *This is absolutely necessary. It should not be the only method, but it should be an indispensable one... What are the advantages of corpus? First, it contains vast amounts of data. Second, the examples it provide are more authentic, which translation courses must emphasize. (From Teacher D)*

4.2 *Barriers to corpus integration*

4.2.1 *Poor facilitating conditions*

Ertmer's first-order barrier focuses on the external conditions, based on the underlying assumption that once sufficient resources are obtained, integration will naturally follow (Ertmer, 1999). However, the current clear dilemma is that though the university provides abundant resources, these resources, among which internet connections, teaching hours, and training support are the three aspects most frequently mentioned by participants, have not been utilized effectively.

Almost all participants expressed dissatisfaction with the resources available in the classroom environment. The first resource they frequently mentioned was unstable internet connections, which hinders the online use of the corpus in classrooms. Access to equipment resources does not imply that the hardware equipment is elaborated (Taylor & Todd, 1995), nor does it mean that the equipment resources are effective, which not only need to motivate and attract students but also provide additional information sources relevant to teaching (Hwang & Wang, 2016). In other words, the current provision of equipment has not provided teachers with facilitating conditions to integrate corpus into translation classrooms.

> *To use corpus in classroom teaching, suitable equipment is the most important factor. However, the current situation is that only a few classrooms provide such equipment, and these classrooms cannot be used for regular courses. (From Teacher A)*

> *I have not considered (using corpus for classroom teaching), do you know why? Because the university's multimedia equipment is really outdated, that is the main reason. Do you know how hard it is to get online! (sighs) (From Teacher B)*

> *I used to teach in our department's classrooms, but the computers and other hardware facilities here are insufficient in many aspects. You definitely need more advanced or high-tech hardware facilities like those in smart classrooms. (From Teacher D)*

Time is another resource with insufficient provision in the classroom environment. When teachers choose strategies for executing teaching tasks, time is one of the main considerations (Li & Ni, 2012). In the universities where the four participants teach, each class is scheduled for 90 minutes, and each lesson has numerous teaching tasks to complete based on the established syllabus. Therefore, using corpus to implement discovery-based or DDL methods in the translation classroom teaching is considered to be realistically impractical.

> *Due to time constraints in the classroom, I cannot lead students to use corpus promptly. (From Teacher A)*

> *Due to time constraints, if I want to integrate corpus into classroom teaching, I usually present corpus screenshots directly rather than directly using corpus-based pedagogy. (From Teacher D)*

Apart from the above two points, training support that lacks relevance to corpus and accessibility is another focal point of discussion. University offers a wealth of training resources. As one participant commented, *"There is a lot of (technology integration) training now. Some are aimed at graduate students, some at in-service teachers. Some are free, and some require a fee" (From Teacher A).* However, none of the four participants have benefited from such training. They indicate that training contents do not meet teachers' expectations to use corpus in translation teaching, and they cannot access useful teaching resources they need. Also, they feel disappointment with the arrangement and contents of training.

> *The main issue is, no one systematically explains how corpus can be useful in our teaching... I am not averse to new things, and I am willing to learn, but there is no opportunity to get to know it. (From Teacher B)*

> *My home is far away from the place where the campus is located. Many lectures and training sessions are*

scheduled during lunch time or when I am not in campus…these arrangements are unreasonable. (From Teacher C)

The second issue is training content does not meet teachers' expectations. Trainings are not seen as helpful in advancing the integration of corpus in teaching, because the training content is too broad and research-oriented, rather than for teaching.

If the training content is not relevant to my courses, I might not attend, because listening to it will not improve my teaching. It is very time-consuming and energy-draining... I have attended many lectures that are designed too broad, too general, and vague. (From Teacher C)

I have attended some training courses. I feel that these courses have not addressed the literacy gap that we, as teachers, face. These training sessions mostly analyze or explain problems from a research perspective, because most of the trainers are researchers rather than practitioners, who use corpus in translation teaching. So, they cannot touch on the essence of teaching, nor can they teach us how to use corpus step by step, how to integrate them, or how to build a translation teaching platform suitable for our courses. (From Teacher D)

4.2.2 *Insufficient corpus literacy*

Teachers' insufficient corpus literacy is a major obstacle to their use of corpus in translation classroom teaching: *"I think another obstacle to consider is whether teachers have the corpus literacy. A teacher must know something about corpus before the integration of it in classroom teaching. In other words, we need to consider whether a teacher updates knowledge and knows the current research trend" (From Teacher A)*. Combined with the views of the other three participants, two reasons are identified: lack of relevant knowledge of corpus and perceived complexity in using it.

Some participants have very limited understanding of corpus, believing that the primary function of corpus is research-oriented, and their understandings of corpus are limited to its basic functions. They do not fully utilize the rich resources in corpus that are beneficial for teaching, leading to the erroneous perception that "corpus cannot be integrated with teaching". For instance, only one participant stated that a corpus provided by the university has features very suitable for teaching: *"Our university's corpus has two modules after logging in: a teaching module and a research module. The teaching module helps teachers to identify the techniques used in a translation, such as literal translation, omission, foreignization, and domestication. If teachers can use these functions in their lectures, it can be very beneficial for teaching. But for me, the topics in the corpus might be somewhat limited" (From Teacher A)*. Though she emphasized the limitation of the corpus topics here, the background information she provided indirectly proved that this university has already built corpus conducive to integrating teaching and technology. Therefore, when the other three participants expressed that current corpus functions are very basic, we can think more deeply about the element of teachers' technical literacy. When teachers believe in the transformative power of technology in education and universities are willing to provide related resources, knowledge related to the teaching applications of corpus becomes a big challenge for teachers to improve their technical literacy.

At that time, other teachers recommended corpus, but we mainly used them for pragmatic checks rather than teaching... I use only the very basic functions. For instance, I look up a word to see which prepositions or adverbs it is frequently used with. Mainly, it is about checking frequency. (From Teacher B)

I think the current corpora are disconnected from practical application, so I basically do not use them in class. (From Teacher C)

Actually, "corpus" is a very broad concept. It includes not just corpus like COCA but also many others related to translation techniques... Though many of teachers, including myself, studied translation teaching in bachelor's, master's, and Ph.D. programs, we have very little knowledge about corpus. We only know the most basic functions of it and we truly lack knowledge on how to effectively use it in translation teaching. (From Teacher D)

In addition to lack of relevant knowledge, teachers perceive corpus access as complex, which also discourages them from the implementation of technology integration in teaching. All the four participants believe that using corpus increases their teaching burden, and the difficulties mentioned include complex operational steps and the data retrieval process.

> *The corpus must be readily available... many multilingual corpuses cannot be accessed without registration. As for me, the registration process is quite cumbersome, not user-friendly. (From Teacher D)*

> *If I want to use corpus for classroom teaching, accessibility is definitely the most important factor. If I have to spend a lot of time retrieving data, I would simply give up using it. (From Teacher B)*

> *I think teachers are reluctant to use corpus because of the workload. There are too many corpora nowadays. If teachers want to find the corpus closely related to the lesson content, they not only need a clear goal but also have to do a lot of filtering. For example, in one class, we talked about Chinese food and mentioned a quote from Confucius. In this case, we needed to look up translations of some classical texts. But there are many versions translated by sinologists, and the resources in different corpora vary in quality. So teachers need to filter through them one by one and look for other relevant versions elsewhere for deeper understanding. (From Teacher A)*

4.2.3 *Inadequate design thinking*

Even if the first- and second-order barriers are eliminated, technology integration may still not occur. In this case, at least one more barrier needs to be discussed, which is teachers' design thinking (Tsai & Chai, 2012). Tsai and Chai believe that since classroom environments and students are highly dynamic, teachers should rely on certain design thinking to reorganize or create learning materials and activities to meet the teaching needs of different environments or groups of learners. Two participants both mentioned that students' different learning needs, based on their different language proficiency and anticipated instructional steps, significantly impede their decision to use corpus for classroom teaching.

> *In my class, some students have already participated national level translation competitions, while others start from scratch. The varying proficiency levels of students make it particularly difficult to integrate corpus into the classroom teaching. Therefore, my main focus in class is still to spark everyone's interest and cultivate a basic awareness of translation... I try to make my classroom as student-centered as possible, but many practical attempts do not reach my ideal state. In short, we teachers have many concerns. Facing different students, we have to consider whether new teaching models can achieve the desired teaching goals. (From Teacher A)*

4.2.4 *Task-technology mismatch*

Corpus affordance deficiency in language using diversity refers to the belief that the content of available corpus is not suitable for translation classroom teaching (e.g., Frankenberg-Garcia, 2005; Ma & Mei, 2021). Participants expressed concerns primarily regarding the inflexibility of corpus-based translation, limited topic coverage, insufficient focus on lexical and syntactic structures, and the rapid evolution of contemporary texts.

Corpus-based translation is essentially machine translations, and participants believe that as long as machine translation is involved, there are still certain issues with flexibility.

> *I think that translation through corpus tends to be relatively rigid. Students may subconsciously associate certain structures provided with specific ways of handling them, but in reality, there are many variations in language collocations, and it is inaccurate to say that a particular combination is the only answer. Information technology standardizes all language, but from my perspective, no rule can fully define language usage. (From Teacher C)*

The topics covered by existing corpus are very limited in scope, which have limited corpus use for teaching.

Most of the materials we use for translation teaching are "self-made", because we find that many translation textbooks are unusable; collecting pieces of content does not satisfy my teaching needs... Actually, the university has already built many corpora specifically for translation research, but they have limitations, only covering a small portion of political or literary topics. If we want to cover a much wider range of content, like advertising slogans or public signs, we need to search for them by ourselves. In fact, most existing corpora cannot even be called corpora; they are just online materials. If we are going to truly use these corpora for translation teaching, I think the first step is to build a more relevant corpus. (From Teacher A)

Translation teaching emphasizes the translation of entire passages, but current corpus mostly only verifies lexical and syntactic structures.

The current alignment between corpus and translation courses is not particularly high. We often say that different translators produce different translations, and for the same passage, there are many possible translation outcomes, leaving plenty of room for variation. Compared to translating sentences and vocabulary, I think translating entire passages is more important. (From Teacher C)

The rapid evolution of contemporary texts is also one of the main reasons why participants are reluctant to use corpus in classroom teaching. In other words, they doubt the effectiveness of existing corpus available on the market.

Translation is highly time-sensitive, but corpus is updated periodically. If I use some content that has not been updated yet, it can greatly impact the students. (From Teacher C)

In summary, the first-order (external) and second-order (internal) barriers to technology integration proposed by Ertmer (1999) remain valid in explaining the unwillingness to use corpus in translation classroom teaching. However, the current discourse has shifted from a focus on mere availability to a concern with effectiveness. The third-order barrier proposed by Tsai and Chai (2012) has been validated in the corpus adoption context, based on which this study specifically highlights the challenge that diverse student learning needs pose to teachers' design thinking. In addition, this study proposes a potential fourth-order barrier: task-technology mismatch. The straw backs of corpus affordance, such as inflexibility of corpus-based translation, limited topical coverage, insufficient attention to lexical and syntactic structures, as well as the rapid evolution of contemporary texts all contribute to a mismatch between corpus use and the attainment of teachers' translation teaching goals.

5. Discussion

This study investigates the factors influencing university EFL teachers' unwillingness to use corpus in translation classroom teaching and delves into their personal understanding of these factors. Overall, university EFL teachers have a positive attitude towards the integration of technology and translation teaching, but choose to abandon it at different stages of teaching practice due to various concerns. Findings of the study include, (1) teachers' proactive attitude toward corpus integration; (2) poor facilitating conditions (unstable internet connections, limited teaching hours and training support that lacks relevance and accessibility); (3) insufficient corpus literacy (lack of relevant knowledge and perceived complexity in using); (4) inadequate design thinking (students' different learning needs impede teachers' intentions to use corpus); and (5) task-technology mismatch (corpus affordance deficiency in language using diversity).

5.1 *Discussion of findings*

In the present study, both young teachers and senior teachers hold a positive attitude towards integrating corpus into translation classroom teaching. This finding challenges the characteristics of digital immigrants (Prensky, 2001) and the views that teachers with older ages have lower intentions to use digital technology (Mannheim et al., 2023).

Consistent with previous research that suggested the lack or insufficient provision of resources is the first-order barrier affecting teachers' integration of technology (Ertmer, 1999; Sadaf et al., 2016), this study proposes that the first-order barrier still remains a significant reason impacting the realization of corpus integration by teachers.

Although diverse technology trainings were provided to the teachers, this study finds that unstable internet connections (Hu & McGrath, 2011), limited teaching hours (Li & Ni, 2012), and training support that lacks relevance and accessibility are significant impediment to teachers' corpus integration. The functions of the technology equipment provided in classrooms are very limited, making it difficult to support teachers' attempts at corpus integration. Furthermore, limited teaching hours is another barrier verified in this study, supporting the findings of Li and Ni (2012), who noted that when teachers choose strategies for executing teaching tasks, time is one of the main considerations. The limited classroom teaching time eroded teachers' confidence in using corpus in translation teaching, despite their awareness that using corpus could facilitate student-centered discovery learning and data-driven learning.

Additionally, teacher training that lacks relevance and quality were identified as a significant obstacle to teachers' implementation of corpus-based pedagogy. Existing teacher training is often led or organized by technical professionals who lack content knowledge (English translation) and thus, the trainings lack focus and were usually disconnected to language teaching practice (Brunetti et al., 2023). Besides, participants of this study proposed that poorly designed training arrangements prevent teachers from making good use of corpus in translation teaching.

The second-order barriers to technology integration identified in previous research (Ertmer, 1999; Sadaf et al., 2016) were also suggested in this study. For example, teachers' insufficient corpus literacy is a key factor belonging to the second-order barrier. Li et al. (2025) pointed out that teachers face challenges in evaluating vocabulary knowledge development when applying corpus, which may be due to their inadequate understanding of corpus technology and concerns about its complexity.

The third-order barrier to technology integration is also suggested in this study. Teachers should have sufficient design thinking skills to use technology to organize activities and create learning materials to enhance teaching and learning (Tsai & Chai, 2012). The current study finds that teachers have a certain of design thinking skill, but students' diverse learning needs, English proficiency and expectations lead to teachers' uncertainty of efficacy in designing teaching.

Building upon the confirmation and enrichment of the three order barriers to technology integration, this study proposes a fourth factor that needs to be considered: task-technology mismatch. Although existing research indicates that corpus offers significant advantages in translation teaching (Lu & Xu, 2023; Lusta et al., 2023), its practical feasibility remains limited, resulting from corpus affordance deficiency in language use diversity (including the inflexibility of corpus-based translation, limited topic coverage, insufficient focus on lexical and syntactic structures, and the rapid evolution of contemporary texts).

5.2 *Limitations and suggestions for future study*

The study has some limitations. First, sampling limitations. This study drew on a relatively small and demographically homogeneous sample, which may limit the breadth and depth of the insights obtained. Teachers' perceptions of corpus-based pedagogy could vary significantly across institutions, geographic regions, and subject specializations (Patton, 2015). Future research should aim for greater sample diversity to enhance the representativeness and external validity of findings (Lincoln & Guba, 1985).

Secondly, researcher bias and subjectivity. Although techniques such as memo writing and member checking were used to improve credibility, the interpretation of qualitative data remains susceptible to researcher bias (Creswell & Poth, 2018). Increasing participant numbers and incorporating individuals with varied professional backgrounds, combined with triangulation, could improve analytic transparency and mitigate subjectivity in future research (Denzin, 2012).

Thirdly, methodological constraints. While well-suited for capturing individual experiences, the exclusive use of semi-structured interviews limits transferability of research results and restricts the scope of interpretation (Maxwell, 2013). Future research could adopt mixed-method designs to cross-validate findings and provide a more comprehensive understanding of the factors influencing teachers' attitudes and decision-making towards technology integration (Johnson et al., 2007).

6. Conclusion

This study, situated in the Chinese EFL context, investigated teacher perceived barriers to integrating corpus into translation teaching through the lens of the three-order technology integration framework. The findings validated the explanatory power of this framework, as proposed by Ertmer (1999) and Tsai and Chai (2012), and revealed four key barriers.

The most prominent challenge was unsatisfying facilitating conditions, including unstable Internet access, limited instructional time, and a lack of relevant and accessible training. Insufficient corpus literacy also posed a major constraint, as teachers lacked both foundational knowledge and operational skills for effective corpus tool use. Furthermore, inadequate design thinking, particularly the difficulty of embedding corpus into pedagogical planning to meet diverse student needs, further hindered implementation.

Importantly, this study extends the existing framework by identifying a fourth barrier: task-technology mismatch. Teachers reported difficulty aligning corpus affordance with the communicative and pedagogical objectives of translation teaching, indicating that teachers' proactive attitudes alone are insufficient for successful technology integration. Instead, effective use is shaped by the interplay of technological, pedagogical, and emotional factors.

These findings carry important implications for corpus tool developers, teacher educators, and policymakers. Corpus training should go beyond technical instruction to include pedagogical design and adaptation strategies. Teacher education programs should embed corpus literacy into professional development, and institutions must ensure reliable infrastructure and ongoing support. Moreover, collaboration between corpus experts and translation teachers is recommended to develop purpose-built corpora that align more closely with translation teaching objectives. Collectively, these efforts are essential to overcoming current barriers and fostering sustainable integration of corpus tools in translation classrooms.

Conflict of interest

The authors declare no competing financial interest.

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Appendix A

Interview Protocol (Based on Ertmer (1999), Tsai & Chai (2012)'s three-order barriers theory)

1. Background Information: What is your age? How about your translation teaching experience? The language used in the classroom? Student levels? Did you use a corpus in your teaching? (Follow-up questions were asked based on the answer to this question)

2. First-order Barriers: External Constraints

(1) What is the general condition of technological facilities and internet access in your teaching context? Are there any constraints that prevent you from using corpus tools (e.g., access, hardware, classroom setup)?

(2) Does your institution or department provide support for using digital or corpus-based tools (e.g., funding, platform access, IT help, time flexibility, or performance incentives)?

(3) Have you received any formal or informal training related to corpus tools or data-driven learning? If yes, was it helpful? If not, would you be interested?

3. Second-order Barriers: Teachers' Personal Beliefs and Skills

(1) Do you feel confident in your ability to use corpus tools for teaching translation? Why or why not? (e.g., technical confidence, familiarity with interface, ability to explain to students)

(2) Do you think your students are capable of engaging with corpus tools meaningfully? (concerning their level of English, digital skills, learning autonomy, etc.)

(3) What concerns or frustrations have you experienced when trying to use corpus-based activities in class?

4. Third-order Barriers: Teachers' Design Thinking

(1) From a professional standpoint, what do you think about the relevance or usefulness of corpora in translation pedagogy? Do you think corpus use aligns with your course goals and student needs?

(2) Have you ever reflected on why you haven't used corpus-based methods more frequently (even if you're familiar with them)? Any shifts in attitude or evolving thoughts over time?

(3) What factors would motivate or enable you to explore corpus-based instruction further in the future?

5. Optional contextual supplement: Teaching Habits & Corpus Experience

(1) When and how did you first learn about corpus tools? For personal research, professional development, or teaching use?

(2) Can you describe a specific case (if any) where you used a corpus in class or in course material design?

6. Closing

(1) Is there anything else you'd like to add regarding corpus use, or any message you hope to convey to researchers or institutions promoting this pedagogy?

(2) May we contact you for a short follow-up if needed?

Examples of additional questions:

Besides others' opinions (e.g., leaders and students), participants mentioned they had considered the feasibility of creating a corpus for their own teaching use. Then, some additional questions were asked, for example: What were the reasons that you did not successfully implement this idea? Can the resources provided by the university help you solve this problem?

Appendix B

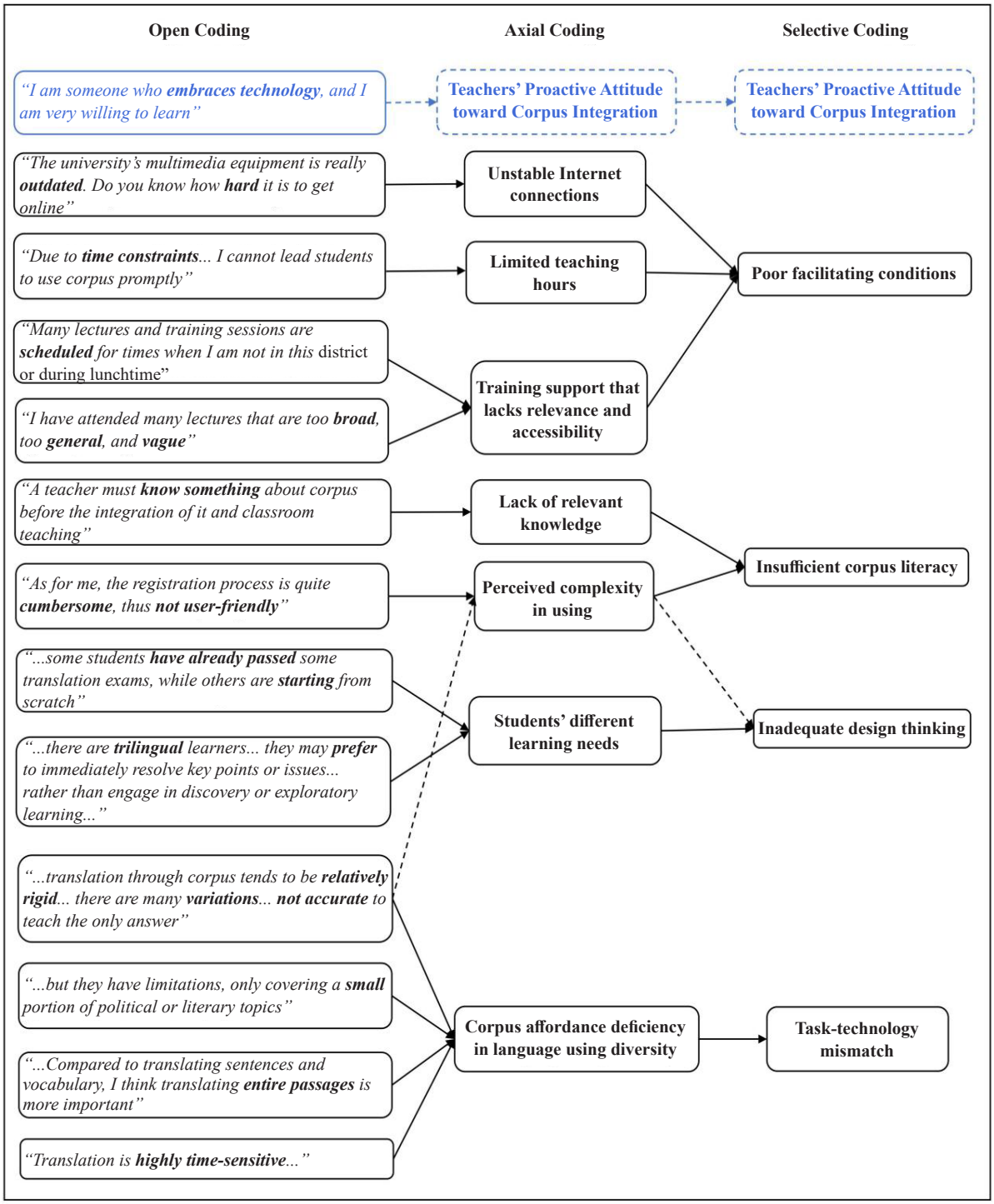

Figure 1. Coding process: final codes (solid), initial codes (dotted); blue = RQ1, black = RQ2