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Effects of Anxiety on Interpreting Performance: Insights from an Undergraduate Interpreting Course

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Abstract: Anxiety has been well documented as a source of problems for language learners in their speaking classes. When interpretation learning is in question, anxiety emerges as an even more pressing issue due to the interpreters' cognitively demanding role as mediators of meaning across languages. By reconceptualizing 'interpretation learning anxiety', the current exploratory research attempts to investigate interpreting undergraduate students' perceived anxiety induced by four different components of consecutive interpreting (CI) competence, the predictive effects of their anxiety levels on CI performance, and the strategies they employ to cope with anxiety in CI classes. Limited memorization and recall techniques were found to cause the highest levels of anxiety among the students. Simultaneous multiple regression analyses, however, reveal a non-significant correlation between students' perceived anxiety and their performance indexed by scores in three different CI tests. The qualitative data indicate that students used diverse coping strategies to manage their emotional responses to anxiety and to address insufficiency in the different dimensions of their interpreting competence. The study proposes pedagogical implications for interpretation courses where anxiety should be given more attention via training strategies that raise students' awareness of anxiety-induced factors.

Keywords: consecutive interpreting, anxiety, coping strategies, undergraduate students, interpreting performance

1. Introduction

In an English as a Foreign Language (EFL) context, undergraduate students enrolled in interpretation courses are faced with the challenges of improving proficiency in the target language while developing interpreting skills. What makes anxiety a particularly relevant issue for investigation in this teaching context is that interpreting students are required to perform highly stress-provoking interpretation tasks while their language proficiency may not be sufficient (Yan & Liang, 2022), which probably leads to substantial levels of anxiety. Inspired by previous literature on the potentially detrimental effects of anxiety on novice interpreters' performance (e.g., Chiang, 2010; Rajabi & Yousefi, 2022; Zhao et al., 2023), the present study examines the anxiety that interpreting students experience during consecutive interpretation (CI) tasks, which can be subdivided into: (a) short consecutive where the interpreter interprets individual utterances during the dialogue of two different speakers; and (b) the classic mode which implies 'the rendition of some five to ten minutes of uninterrupted discourse' (Pöchhacker, 2016, p. 220). A major difference between these two consecutive interpreting modes is the critical need for note-taking skills in the latter.

Gile (2009) described consecutive interpreting as comprising two phases: (a) the comprehension phase (or listening and note-taking phase), and the target speech production phase. In Phase One, interpreters listen actively and analyze the source language speech. They rely on their short-term memory to retain the input in the time lapse between the moment information is heard and the moment it is written down in their notes. Coordination of these tasks helps interpreters remain alert and ready for the target-speech production phase. Also during this stage, the interpreter listens to the source-language speech and identifies the words to figure out the 'meaning' of the utterance. On a higher level, the interpreter listens to get the big picture, which includes the structure and progression of the talk, the primary and secondary ideas, as well as the links between them. In Phase Two of CI, interpreters retrieve messages from their short-term memory and reconstruct the message, read the notes, and produce the target language speech. As such, in each stage, interpreters need to mobilize and coordinate different sets of skills and knowledge within a very short span of time to perform well in their job, resulting in a highly demanding and stress-provoking situation.

2. Literature review

2.1. Conceptualizing interpretation learning anxiety (ILA)

Anxiety has consistently been found to negatively influence students' performance in language learning (Yan & Liang, 2022). The literature on Foreign Language Anxiety (FLA) is often associated with Horwitz et al.'s (1986) conceptualization of this concept, along with their seminal Foreign Language Anxiety Classroom Scale (FLCAS) with 33 items related to three different sources of anxiety: fear of communication, test anxiety, and fear of being negatively judged in the language classroom. In interpreting, anxiety is considered one of the most researched psycho-affective factors in interpreter psychology, being conceptualized as part of the psycholinguistic profile of trainee interpreters alongside self-concept, motivation, language ego, and stress (Walczyński, 2021). Interpreters' anxiety has been hypothesized to result from their overthinking "about their self-perceived insufficiently developed interpreter

competence" (Walczyński, 2021, p. 404). There have been different research studies on the impact of anxiety on interpretation performance or the correlation between these two constructs, a few of which examine the performance of undergraduate students enrolled in interpreting courses. A study conducted by Zhao et al. (2023) conceptualized anxiety in relation to consecutive interpreting as comprising two dimensions: self-efficacy anxiety (i.e., task-relevant anxiety) and state-trait anxiety (i.e., anxiety as a personality trait). However, in Zhao et al.'s (2023) study, anxiety was operationalized separately from CI skills, and the authors ran multiple regression analyses of anxiety as a factor predicting interpreting competence, specifically speech errors. Similarly, in Chiang's (2010) study, trait anxiety was correlated with interpretation students' FLA and interpreting performance. Unlike the two studies just mentioned, Yan and Liang (2022) investigated the impact of FLA on students' interpreting performance, taking anxiety as is from Horwitz et al.'s (1986) FLCAS. The research efforts in this line of enquiry seem to be characterized by methodological variation in terms of the operationalized constructs, research instruments, and overall designs.

Gile (1999, 2021) conceptualized the challenges experienced by interpreters in his 'tightrope hypothesis', which proposed that interpreting tasks require interpreters to work close to processing capacity saturation, hypothesizing that limited cognitive resources may result in failures in interpreters' rendition. Seeking to elaborate on this, Chiang (2010) explained that interpreting skills depend on both the source and the target language listening and speaking abilities. As students' command of both languages may be inadequate in tertiary interpreting classes (Yan et al., 2014), the psychological stress associated with anxiety in interpretation is a complex phenomenon that goes beyond the three components of Horwitz et al.'s (1986) FLA. As a result, in researching the impact of anxiety on interpreting performance among interpreter trainees at the undergraduate level, it is necessary to incorporate the key elements associated with interpretation skills conceived in different cognitive and interactional models. The conceptual model selected for the current research is Gile's (2009) Effort Model (EM) of Consecutive Interpreting, which presumes that during the interpreting process, interpreters make three efforts, namely 'listening and analysis', 'production' (i.e., production of notes in the first phase and production of the target speech in the second), and 'memory'. The sum of these three efforts must not exceed the interpreter's processing capacity; otherwise, there will be omissions and errors in the rendered speech of the target language.

Previous research has proposed that being able to overcome anxiety is conducive to successful rendition of the target speech and interpreting proficiency in general (Ferdowsi & Razmi, 2024; Rajabi & Yousefi, 2022). The combined constructs derived from both FLA and EM can be used to directly address the anxiety experienced by EFL students taking interpretation courses, or their interpretation learning anxiety (ILA). In this sense, ILA is deconstructed as multi-dimensional, comprising elements from FLA (communication apprehension, fear of negative evaluation, and test anxiety) as well as the three efforts in Gile's (2009) EM of CI. In this exploratory study, we aim to extend this line of enquiry by clearly conceptualizing the construct of ILA and situating it within an interpreting training program where undergraduate students experience psychological stress as they embark on their interpreting careers.

2.2. Previous research on anxiety in CI

Previous research has identified and examined different causes of anxiety experienced by both novice and experienced consecutive interpreters. Among the different factors causing anxiety in interpretation, language proficiency has received most research attention. Arnaiz-Castro and Pérez-Luzardo Díaz (2016) conducted research on 153 Spanish translation and interpreting students whose English proficiency ranged from CEFR B2 to C1 levels. The questionnaire data showed that almost 90% of the surveyed students experienced average to high levels of anxiety, adding that the better the interpreting students' language skills are, the lower the level of anxiety they might experience. In addition, compared to senior interpreting students, younger students experienced a higher level of anxiety associated with negative judgments from the teacher, and they also reported feeling more anxious about the interpreting learning process in general. Interestingly, female participants tended to suffer from higher levels of anxiety than males.

Ferdowsi and Razmi's (2024) qualitative enquiry among 30 interpreter trainees in Iran also revealed six groups of stress-evoking factors (i.e., 'anxiety' and 'stress' were used interchangeably in this study), including individual, input factors (i.e., language-related factors, speaker-related factors), inappropriate note-taking skills and lack of creativity in note-taking, environmental factors (i.e., noise, distraction, and peer-related factors), output factors (i.e., meaning transfer, delivery), and teacher-related factors (i.e., testing, teachers' behavior). Self-correction using tape-recorded interpreting performances and notes is put forward by the participants as ways to deal with anxiety. In addition, it is recommended to include stress management instruction in the curriculum as well as self- and group-practicing to enhance note-taking, enrich lexical resources, and improve students' listening skills.

Ivars and Calatayud (2001) devised a large-scale experiment on 197 final-year Translation and Interpretation students in Spain spanning three academic years to study the relationships between the fear of public speaking, anxiety, and interpreting performance. Each student was required to complete two questionnaires which measure their self-perceived levels of confidence in public speaking and anxiety in interpretation. Then, they had to interpret a speech of 6

to 8 minutes delivered by the teachers in the final consecutive interpreting exam in front of lower-grade students. The outcomes revealed that high scores in anxiety levels were positively correlated with low public speaking confidence, but no significant correlation was found between students' interpreting performance and their perceived public speaking anxiety. However, the findings also showed that there was no positive relationship between anxiety and interpreting performance, indicating no adverse effect of anxiety on the quality of the students' interpretation.

Using mid-term exam scores and semester grades as measures of 213 Chinese-English interpretation students' interpreting performance, Chiang (2010) conducted correlational analyses to examine the association between trait anxiety (i.e., individuals with trait anxiety have the tendency or predisposition to perceive a wider range of situations as threatening (Arnaiz-Castro & Pérez-Luzardo Díaz, 2016)), FLA, and interpreting performance. Chiang (2010) found a non-significant correlation between trait anxiety and the two outcome measures, but there was a significantly negative correlation between students' FLA and their interpreting performance. Similarly, in a study into the relationship between classroom anxiety, emotional intelligence, and the quality of consecutive interpreting performance, Rajabi and Yousefi (2022) used a questionnaire to measure the interpretation learning anxiety of thirty Iranian undergraduate English translation students. The result showed that students' interpreting performance quality, judged by accuracy and delivery, was negatively affected by the anxiety they experienced during the interpreting process. The findings also indicated that in contrast to those who experienced a lot of interpreting anxiety in class, students who were under less pressure performed interpreting tasks more successfully.

Kosman (2021) carried out a study to figure out the coping strategies employed by eight novice interpreters in Poland. By using semi-structured interviews, the author aimed to investigate the interpreters' perspective towards their roles, the challenges that they had in the interpreting process, and the solutions they applied to overcome the stressful interpreting tasks. The findings concurred with Arnaiz-Castro and Pérez-Luzardo Díaz's (2016) research, which showed that the lower the interpreters' proficiency in working languages is, the higher the level of stress they might experience. Moreover, novice interpreters often used two types of strategies to cope with stress: emotion-oriented strategies (distance and self-irony) and problem-oriented strategies (focus on tasks and preparation). Among these two types, emotion-oriented strategies were more predominant.

The negative effect of ILA is found in the research of Zhao (2022). This study aimed to investigate how language proficiency, working memory, and anxiety level affect the speech disfluencies of 53 translation and interpreting seniors in China. The data from the participants' consecutive interpreting test showed that more anxious students used more fillers and repetitions in their interpreting output. Also, apart from speech disfluencies, anxiety might have an overall negative impact on the interpreting process, including source language comprehension and target language delivery. In a later study, Zhao et al. (2023) reported key findings based on multiple regression analyses on a sample of 53 senior interpreting and translation students, which pointed out that anxiety is associated with more lexical and syntactic errors committed by the students.

Focusing on students' foreign language proficiency, Yan and Liang (2022) evaluated the impact of foreign language anxiety (FLA) on the interpreting performance of 49 undergraduate and graduate English-Chinese interpreting students in Hong Kong. They found a negative correlation between FLA levels in the interpretation class and students' scores in CI performance. In addition, the study indicated four anxiety-provoking factors related to foreign language in the interpretation class: fear of public speaking, listening comprehension difficulty, fear of negative evaluation from peers, and fear of communicating with native speakers. These factors, however, are not the same as Horwitz et al.'s (1986) FLA components, indicating a marked difference and probably an additional challenge of performing translational tasks besides communicating in the target language.

Recently, Liu and Zhang (2023) explored the association between Chinese graduate interpreting students' scores in the Logical Memory Test (LMT) and the Scale of Language Anxiety (SLA) and their consecutive interpreting performance. Using quasi-experimental and correlational research, the authors found that students' LMT test scores correlated significantly and positively with their Chinese-English CI performance, while their SLA scores negatively correlated with both Chinese-English and English-Chinese CI. Examining Chinese interpreting students at undergraduate and master's levels, Cai et al.'s (2023) longitudinal study used correlational and hierarchical regression analyses to examine the association between three psychological factors (motivation, self-efficacy, and anxiety) and students' development of interpreting competence. Undergraduate students' motivation and self-efficacy were found to decrease over time while their anxiety remained unchanged. Meanwhile, the master's students' learning motivation and self-efficacy were higher than their undergraduate counterparts, and they also experienced lower anxiety levels.

The review of the literature highlights a host of factors associated with anxiety in the interpreting process. Although some studies suggested that anxiety has negative impacts on both novice and skilled interpreters' performance (e.g., Liu & Zhang, 2023; Rajabi & Yousefi, 2022; Zhao, 2022), there is a lack of strong empirical evidence about the interplay between EFL interpreting students' performance and their self-perceived anxiety induced by different components related to CI competence. In addition, each study primarily elucidated a specific cause rather than a systematically conceived construct of ILA, especially in the context of undergraduate interpreting courses. Moreover, what remains largely

unanswered is how interpreting students at the undergraduate level manage anxiety as part of their training process. Addressing these gaps, this study seeks to answer three research questions:

1. What are undergraduate students' perceptions about anxiety-inducing factors in their consecutive interpreting courses?
2. To what extent do students' perceived ILA levels predict their interpreting performance?
3. What coping strategies do undergraduate interpreting students employ to manage ILA in the interpretation process?

3. Methodology

3.1. Participants

The current study was conducted among 38 final-year English majors who were enrolled in the Vietnamese-English interpreting program of a university in Vietnam. Practical constraints related to the availability of a large pool of undergraduate interpreting students, a norm reported in some previous studies in this strand of research (e.g., Ferdowsi & Razmi, 2024; Yan & Liang, 2022; Zhao, 2022; Zhao et al., 2023), led us to settle on this sample size. To address the weakness of small-scale research and enhance data credibility, we collected multiple data sources and aimed for depth rather than breadth of data via a mixed-methods research design, employing the qualitative data from semi-structured interviews that were triangulated with the quantitative data from a questionnaire. In addition, students' CI performance was assessed using three separate sets of scores, the average of which was used to ensure greater reliability. The students were either 20 or 21 years old. Regarding proficiency level, students admitted to the interpretation program had to achieve an average score of at least 8.0 on a 1-10 scale for speaking and listening skills in the previous five semesters of their undergraduate program. They had also completed their previous semesters with a GPA of at least 3.4/4.0, achieving a proficiency level of CEFR B2 or above. In general, students enrolled in the interpretation sub-major were among the best 10% of students in the whole cohort. At the time of data collection, these students had completed three consecutive courses in interpreting skills with several opportunities to do CI practice with peers and instructors during mock conferences as well as liaison scenarios.

3.2. Data collection and analyses

3.2.1. Questionnaire: Consecutive ILA scale

The review of the literature has shown that it is elusive to capture and systematically measure interpreters' physical manifestations associated with anxiety during their CI performance. Therefore, the current research adopts the indirect measure of anxiety in a questionnaire scale. Self-report questionnaires are considered satisfactorily accurate based on previous empirical research, which pointed out strong associations between respondents' self-reports and their actual behaviours (Hubscher-Davidson, 2018). The questionnaire in this research includes adapted items from Horwitz et al.'s (1986) FLCAS as well as items constructed based on the three efforts of 'listening and analysis', 'production', and 'memory' proposed in Gile's (2009) EM for consecutive interpreting. The "translation effort", or interlingual conversion, is also a central element to CI. However, in a more recent paper, Gile (2021) himself explained why he did not include translation effort as part of the effort model, basing his argument on the fact that as interpreters deliver target speech segments, "initial preparation by some activation of translinguistic links or other 'transfer' processes before the utterance is produced or signed is also plausible" (p. 146). He emphasized that this is even more salient in the case of CI, where interpreters already take some notes in the target language, underscoring the fact that they have undergone some "mental" translation before actual rendition of the target speech. Therefore, capturing interpreting students' TL production via the dimensions of active listening, note-taking, memorization, and public speaking has already encompassed their interlingual conversion. Similarly, directly recording interpreters' coordination efforts to regulate active listening, note-taking, memorization, and public speaking poses a research challenge due to the largely non-observable nature of this real-time cognitive process. It is often the case in previous qualitative and quantitative studies in this strand of research that interpreting performance is captured via interpreters' listening comprehension, note-taking, and memory retention, as well as their TL output (e.g., Liu et al., 2023; Zou & Guo, 2024), often considered the most readily accessible efforts to interpreting students' awareness. Therefore, the finalized questionnaire includes 25 items, with 24 using a five-point Likert scale ranging from 1 ('Strongly disagree') to 5 ('Strongly agree'). All the items are negatively worded to measure students' self-perceived anxiety levels related to four different dimensions: (a) Insufficient active listening (5 items), (b) Difficulty with note-taking skills (3 items), (c) Challenge with short-term memory (3 items), and (d) Lack of confidence in public speaking and TL production (13 items). Item 25 is an open-ended question asking students about their coping strategies when faced with stress and anxiety in their CI tasks.

The questionnaire was initially reviewed by an experienced interpreter trainer for revisions to wording and question content. After the trainer's comments and feedback were incorporated in the revised version, it was piloted among 10

interpreting students in the previous cohort. Any ambiguity issues with the questionnaire were addressed and revised before it was officially administered. Cronbach's alpha coefficients were calculated to check the internal consistency of the instrument with the following results: α = .701 for Insufficient active listening skills, α = .783 for Difficulty with note-taking skills, α = .725 for Challenge with short-term memory, and α = .907 for Lack of confidence in public speaking and TL production, indicating very good to excellent internal consistency of the items in each dimension for the intended research focus. The questionnaire was sent to 38 participants via Google Form who agreed to have their responses collected for this research.

3.2.2. Semi-structured interview

Of the 38 students, ten were invited to attend individual interviews via Google Meet. The interviewed students were purposefully selected to maximize diversity in terms of gender, CI test scores, and anxiety levels indexed by their questionnaire responses. In the current research, the interviews are designed in a semi-structured format to allow for open discussion and elaboration on the key themes addressed in the questionnaire. In addition to self-perceived anxiety sources experienced among the students, their coping strategies to handle stressful situations during interpreting tasks were also discussed.

Each semi-structured interview lasted about 20 minutes, was audio-recorded, and transcribed by the second author. The interviewed participants are anonymized and referred to by pseudonyms, namely S1, S2, S3, etc., throughout this paper. Because the interviews were conducted in Vietnamese, the excerpts reported in this research were translated into English and carefully checked for fidelity to the original transcripts. The interview data were then analyzed using thematic analysis to determine emergent themes and sub-themes related to the sources of ILA that interpreting students encountered in the interpreting process as well as their coping strategies. The recurrence of participants' ideas in each theme was tabulated for systematic reporting.

3.2.3. Tests of consecutive interpreting performance

Students' end-of-term exam scores in three different CI courses, namely 'Basic Skills in CI', 'CI Practice 1' which focuses on six topics (Family & Children, Education, Transportation, Languages, Technology, Tourism) and 'CI Practice 2' which focuses on another six topics (Economics, Media & Advertising, Environment, Healthcare, Entertainment, Art & Culture) are used as measurements of their interpreting performance. The 'Basic Skills in CI' exam was conducted in pairs, where Student A made an impromptu speech of about three minutes in English after picking a random topic and preparing the speech in two minutes. Student B listened, took notes, and rendered their partner's speech into Vietnamese. In the second round, Student A and Student B swapped roles. In 'CI Practice 1' and 'CI Practice 2', students took the exam individually and performed two tasks: one Vietnamese-English interpretation and one English-Vietnamese interpretation task. In each test, students performed their interpretation on one of the six texts, which were comparable in terms of length, speed of delivery, as well as lexical and syntactic complexities (equivalent to the six topics in each course) delivered by AI voices. The use of AI-powered voices helps ensure consistency in articulation and delivery rate. These measures were taken in an effort to minimize variability unrelated to anxiety in the collected data. In addition, end-of-term assessments were used as the benchmark for students' interpreting performance, as this format aligns with the low-stakes setting of an interpreting course rather than professional interpreting contexts. Students' performance was assessed against a marking scheme comprised of three different components: (a) form (i.e., accuracy in language use in terms of grammatical and lexical choices, pronunciation, articulation); (b) content (fidelity to the source speech, main ideas, supporting ideas, and links between them), and (c) presentation (smooth delivery, fluency, non-verbal communication, addressing the audience).

All of the raters had at least five years of experience working as lecturers in the interpretation division with extensive experience rating students' performance. Although each test is not double-rated by two lecturers, the raters were required to conduct double scoring of the first two candidates' performance and discuss any differences between them before moving on to the official marking of the candidates using the marking scheme. Despite the lack of double-rating of students' performance in the tests, each student's performance is calculated as the average of their three test scores, which produces more reliable measures than their one-shot performance in a single test. Also, a significantly positive correlation was found between the test scores across these three exams, which suggests consistency in interpreting performance across the three tests for individual students. Table 1 shows a significantly positive correlation between students' three sets of CI test scores.

Table 1. Pearson's correlation matrix: CI test scores (n = 38)

Test name		***Basic Skills in CI***	***CI Practice 1***	***CI Practice 2***
Basic Skills in CI	Pearson's r p-value	—		

CI Practice 1	Pearson's r	0.504**		
	p-value	0.001		
CI Practice 2	Pearson's r	0.362*	0.642***	—
	p-value	0.026	< .001	

4. Findings

This section presents detailed results in accordance with the research questions: Students' perceived anxiety sources, the predictive effects of perceived anxiety on CI performance, and their reported coping strategies.

4.1. Students' perceived levels of anxiety triggered by different factors

As seen in Table 2, students expressed highest agreement level with the statements about the anxiety induced by insufficient memorization techniques and their limited ability to recall information during interpretation tasks (M = 3.75, SD = 0.69). This issue is highlighted by seven out of the ten interviewed students. For example, S7 admitted that she was '*extremely anxious about not remembering the important points or missing important information*', while S3 said that '*I feel quite anxious because I can remember only important information, and the rest is quite messy'*. This may partially explain students' fear of delivering interpretation in the target language because uncertainty about the fidelity of information in the target speech made them panic: '*I trembled and became nervous if I misinterpreted the information delivered by the speaker or if my interpretation lacked coherence and smooth flow*' (S2).

Table 2. Students' perceived anxiety levels (n = 38)

Difficulty with…	**Number of items in cluster**	**Min***	**Max**	**Mean**	**SD**
Active listening	5	2.4	5.0	3.63	0.66
Note-taking skills	3	1.3	5.0	3.51	0.82
Short-term memory	3	2.0	5.0	3.75	0.69
Public speaking	13	1.54	5.0	3.04	0.79

**Note: The minimum value might not be a round number as it is the average of the min values of the different items within each dimension*

Difficulties with active listening and note-taking skills were also the sources of their anxiety, with pretty high levels of agreement with different statements in these aspects (M = 3.63 & 3.51, SD = 0.66 & 0.82, respectively). Regarding the interview data, all of the respondents commented that they experienced various feelings depending on the speakers' delivery styles, especially speakers' accent and speed of delivery. S2 commented, '*If the speaker's accent is weird and his speed is fast, I feel stressed and easily miss the information that is delivered*'. In addition, nine of the interviewees reported not having established a consistent note-taking system, which causes them some challenge during the production phase. Among the four sources of anxiety surveyed, students were least anxious about their public speaking skills (M = 3.04, SD = 0.79). This ties in with the fact that students enrolled in the interpretation program were those with very good scores in oral skills.

ILA may provide an explanation for some students' concern about receiving negative feedback from their peers on their CI performance in front of the class. S7's comment is representative: '*I'm happy if they are positive comments; I'm*

sad if those comments point out my mistakes'. However, some students showed resilience despite their anxiety when faced with negative comments from others about their interpreted output, like S2: '*Instead of being nervous, I keep volunteering to deliver my interpretation the next time so that I can see whether my interpretation is better or not through my classmates' re-evaluation*'.

4.2. Predictive effects of students' perceived anxiety on interpreting performance

The second research question seeks to investigate the predictive effects of students' perceived anxiety levels on their interpreting performance, which is indexed by their CI exam scores. Simultaneous multiple regression analyses were employed to investigate whether students' perceived anxiety levels related to insufficient active listening, inadequate note-taking skills, low ability to memorize and recall information, and fear of public speaking could predict their CI performance.

Before running the multiple regression analyses, assumptions about the normal distribution of the CI test score and students' anxiety levels in the four dimensions were assessed using the Shapiro-Wilk test. The results show that all of the Shapiro Wilk tests for the dependent and predicting variables were non-significant, indicating normal distribution of all the variables. Assumptions about multicollinearity were also checked by running Pearson's bivariate correlations between the predicting variables (i.e., the four anxiety dimensions). Despite the statistically significant correlations between each pair of anxiety scores, the correlation coefficients were all well below .80, showing weak to moderate, not strong, correlation, as seen in Table 3. Therefore, multicollinearity was not an issue.

Table 3. Pearson's correlation matrix: Anxiety scores of four dimensions (n = 38)

Variables	*Active Listening*	*Note-taking*	*Short-term memory*	*Public speaking*
Active listening	—			
Note-taking	0.581* < .001	—		
Short-term memory	0.671* < .001	0.475* 0.003	—	
Public speaking	0.767* < .001	0.466* 0.003	0.504* 0.001	—

The dependent variable of averaged scores from three CI tests was regressed on four predicting variables related to CI anxiety among the interpreting students. The results show that students' perceived anxiety levels do not significantly predict their CI performance, $F(5,16.389) = 0.288$, $p = .916$. Specific results further reveal that none of the perceived anxiety scores related to students' (a) insufficient active listening, (b) inadequate note-taking skills, (c) low ability to memorize and recall information, and (d) lack of confidence in public speaking is a significant predictor of interpreting performance: (a) β=-.179, t= 0.515, p= .610, (b) β=-.074, t= -0.409, p= .685, (c) β=.187, t= 0.752, p= .457, and (d) β=-.057, t= -0.245, p= .808, respectively. These results may suggest a non-significant impact of CI anxiety on students' consecutive interpreting performance.

4.3. Students' reported coping strategies to manage CI anxiety

Following Kosman's (2021) division of coping strategies into problem-oriented and emotion-oriented categories, Tables 4 and 5 present the summary of students' reported strategies to overcome anxiety during their CI tasks. The data are extracted from 38 students' responses to the open-ended question in the questionnaire and the comments made by the interviewed students. For the interviewees, if they mentioned the same strategy in both their response to the open-ended questionnaire item and their interview, that point is counted only once to avoid overlapping reported information.

4.3.1. Problem-oriented coping strategies

When dealing with the ILA encountered during CI practice, students tried different strategies prior to actual performance in their interpreting tasks. The most cited strategy is to maintain regular practice to boost their skills relevant to consecutive interpreting performance, including public speaking, enhancing input from different learning resources (YouTube, TED Talks, etc.) to improve active listening skills, or broadening background knowledge through more

exposure to authentic materials such as watching current affairs in the news. These are preparatory steps to help students build up their confidence, which can potentially ease ILA in class. Interestingly, in the face of stress and anxiety, some students chose to omit information in their production rather than render content they are not sure about. Although such avoidance strategies may not be helpful in the long run, at least they help students survive during the CI tasks while giving them more time to build up supplementary skills. A summary of students' reported problem-oriented coping strategies is provided in Table 4.

Table 4. Problem-oriented coping strategies used by interpreting students

Strategy	Frequency	Sample comments from students' answers
Maintain regular practice activities	22	- At home, I stand in front of the mirror and practice speaking, then record my own interpretation on the phone to improve pronunciation. I also practice interpreting with peers via Google Meet.
Get well-prepared	9	- I typically spend some time before any interpreting classes researching the vocabulary that appears in the videos related to the topic of that lesson and ways to interpret it.
Broaden background knowledge	8	- I listen to podcasts or news on foreign channels to enrich my knowledge. I also read more books about culture to better understand the nature of languages.
Omit information in the production	4	- If I get anxious in the production stage, I would skip the unclear information to manage my emotions and maintain smooth delivery.

4.3.2. Emotion-oriented coping strategies

Anxiety is concerned with the psychological side of performance, and several students shared about stress management strategies, as seen in Table 5.

Table 5. Emotion-oriented coping strategies used by interpreting students

Strategy	Frequency	Sample comments from students' answers
Keep calm and stay focused	20	- I try to put myself at ease by thinking that 'I can do it', 'everyone can make mistakes, and this is an opportunity for me to learn'.
Take deep breaths	11	- I usually take a deep breath to ease anxiety and encourage myself that I can do it.
Avoid eye contact with others	5	- I take off my glasses so that I cannot see others clearly. This way, I can concentrate more on my interpreting performance.
Learn from others' experience	3	- I often seek advice from experienced interpreters on YouTube videos or from peers on how to deal with challenging interpreting tasks.

A few students reported having developed a mindset that interpreting is a challenging task, but they believe in their capacities to conduct these tasks well with perseverance, as '*to err is human*' (S10). S6 also commented that he believed in the learning opportunities through these interpreting tasks, adding that this is how he challenged himself to improve over time. This also explains why he often learned about stress management tips from the Internet as well as his peers. A considerable number of comments relate to breathing techniques and positive self-talk as a way to manage stress during CI practice. Apart from these positive approaches, some students were probably under so much pressure during CI tasks that they chose to avoid eye contact with peers and the instructor during their interpretation. Instead, they either diverted their gaze from the audience or took off their glasses so that their focus was more on the message, not the target audience whose presence may exert greater pressure on them.

5. Discussion

The current research examines students' perceived anxiety levels related to four different dimensions of consecutive interpreting and the interplay between anxiety and their CI performance. The main findings indicated that the most challenging issue faced by these students is their lack of short-term memory techniques to facilitate smooth delivery. Employing effective short-term memory is a new dimension that students need to master in their progression towards professional practice in interpreting. It is, therefore, within expectations that this is a significant trigger of anxiety for the respondents. This finding is in line with Lu and Chen's (2013) report of the prevalent answer among interpreting students who attributed the delays in their CI production to their failure to recall information. The three remaining dimensions of note-taking, active listening, and public speaking were perceived to be less challenging, probably because students have learned and somewhat developed good skills in these aspects for most of their undergraduate courses.

Contrary to earlier findings (e.g., Chiang, 2010; Liu & Zhang, 2023; Rajabi & Yousefi, 2022; Zhao, 2022; Zhao et al., 2023) which suggest negative impacts of anxiety on interpretation quality, multiple regression analyses in this research indicate that interpretation learning anxiety perceived by students is not a significant predictor of their CI performance, which implies that students' low confidence in the four components of CI competence does not adversely impact their interpreting performance. This result, however, supports what was found in Ivars and Calatayud's (2001) and Cai et al.'s (2023) longitudinal research that no significant correlation was detected between anxiety and students' interpreting performance. Although anxiety has been well documented to cause problems even for professional interpreters, anxiety does not necessarily take its toll on students' interpreted output. This finding can be viewed because students' performance was recorded in the low-stakes classroom-based setting rather than professional interpreting assignments with the presence of real clients. This non-significant predictive effect may unveil not only students' resilience in this low stakes setting but also their efforts to avoid being overwhelmed by anxiety by using problem-oriented and emotion-regulatory strategies, which are reported in the qualitative data. In addition, insights from early psychological research pointed out that stress can be either negative or positive, the latter of which promotes adaptation to the environment or situation at hand (Selye, 1956). The well-cited Yerkes-Dodson (1908) law of arousal and performance provides an additional angle to explain this finding. An optimal dose of anxiety can potentially create mental arousal, which in turn facilitates interpreting students' best performance rather than worsening it. Only when the level of anxiety is too high can it be detrimental to interpreters' output, which may not be the case in the not-so-high-stakes classroom context of the current research.

Therefore, students' comments about their coping strategies in the face of anxiety and stress are worth careful consideration by both interpreter trainers and administrators of interpretation training programs. Students at the undergraduate level are new to interpreting skills while their language proficiency is still developing. Therefore, they need substantial support from others to progress. Although the students have initially developed strategies to handle stressful CI tasks, they are struggling with both emotional problems and professional skills to perform well, which may account for non-optimal solutions such as diverting their gaze from the audience or intentional omissions of information in their interpreted output. It is worth bearing in mind some early cognitive psycholinguistic assumptions that humans can only allocate 'attention-sharing' to largely automatic and habitual tasks and that "we cannot attend perfectly to both the speech of others and to our own" (Broadbent, 1952, p. 271). However, the possibility of divided attention as well as self-monitoring of output can come with experience and professional training (Pöchhacker, 2016). Therefore, novice interpreters like those in the current research expressed awareness about the need for as much exposure to authentic materials as possible alongside regular interpreting practice at home and with their peers.

6. Pedagogical Implications and Conclusion

The findings and discussion inform a few pedagogical implications for interpreter training in an EFL context. Firstly, the perceived challenges related to note-taking, active listening, and short-term memory unveiled in the current research highlight the need for instructional practices that not only train students in interpreting skills but also offer continuing support for their general linguistic development. Training activities can consider the inclusion of rich resources that direct interpreting students to authentic materials in different subject matters to boost their content knowledge and language skills. Interpreter trainers can also build on students' reported regular practice habits to provide exposure to these materials and encourage them to expand their reading, build glossaries on different topics as one of the strategies to enhance background knowledge and enrich their lexical repertoires. Students should also be provided with extra materials for self-practice and recommendations on useful learning resources. Regarding the concern about negative feedback from peers, more collaborative interpreting assignments should be implemented so that students are better trained in delivering constructive feedback and developing more positive approaches to dealing with the feedback they receive. In the long run, this can potentially promote constructive feedback practices and peer support rather than peer pressure to alleviate ILA in interpreting courses.

As part of professional development, interpreting students should receive guidance on professional reflection skills to identify their own sources of anxiety and circumstances that are likely to trigger anxiety problems. In other words, training activities should add a portion of reflective practice so that students can transition from over-reliance on the trainers to more self-reliance in seeking strategies to cope with overwhelming anxiety both during their in-class CI practice and in future professional assignments. Teaching students to learn to accept anxiety as part of the interpreting process is of prime importance as well. One of the key findings in this research has pointed out that anxiety scores on different components of the interpretation learning anxiety do not significantly predict CI performance, and therefore, anxiety may not exert a detrimental impact on students' performance. It follows that interpreting students should be trained in keeping anxiety to an optimal dose rather than being overwhelmed by this psychological phenomenon. It is during the training process that interpreter trainers raise students' awareness about what may constitute anxiety and how to maintain anxiety within manageable levels to perform their best, as the ability to keep anxiety under control is conventionally considered a must for interpreting (Cooper et al., 1982). Moreover, students should be encouraged to build on their existing coping strategies to enhance resilience, another key value for interpreters. Practicing self-reflections, maintaining regular positive self-talk, and developing strategic self-affirmations are some of the techniques for students to keep moving forward.

A few limitations have to be acknowledged in the current research. Firstly, the study is rather small-scale, with a sample of 38 students. Although a small sample size precludes generalizations of the findings to other settings, the study has provided insights into an EFL context where interpreting training takes place at the undergraduate level, with its unique characteristics that may be of relevance to similar learning environments. Despite our efforts, we have not found any previously validated questionnaire that closely matches the research focus of the current study on novice interpreters. Additionally, the limited access to available participants (with interpreter training programs typically having small groups rather than large classes, particularly in the Vietnamese EFL context) hinders the use of exploratory and confirmatory factor analyses to investigate whether the four dimensions in the questionnaire are empirically distinguishable. Therefore, we attempted to construct a questionnaire theoretically founded in two relevant frameworks suited to the research objectives, combined with expert judgement during the careful review of the questionnaire items, followed by a piloting stage with a small sample to minimize threats to the construct validity of this data collection tool. These two issues render the questionnaire and the interpretations following its results exploratory rather than fully validated, paving the way for future efforts in this line of enquiry. The third limitation is related to the lack of direct observation of students' physical manifestations of anxiety, which can also be addressed in future research via different data collection tools. Such additional evidence, combined with experimental intervention strategies in interpretation training programs, can reveal more empirically proven insights related to the impact of anxiety on interpretation performance.

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