Exploring Enjoyment and Anxiety among Chinese Language Learners in Thailand: A Mixed-Methods Study

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ABSTRACT

Background and Objectives: Learner emotions are considered to be important in acquiring a second language. They influence learning processes as well as learning outcomes. The available literature shows that enjoyment and anxiety are not opposite end of a single continuum. They operate autonomous emotional dimensions. Most studies on Chinese language learning have been conducted within target-language environments. There is a lack of research conducted in non-target-language contexts. The current study contributes to this area by examining Chinese language learners in Thailand. It examines overall levels of enjoyment and anxiety, their sources, and the relationship between the two emotions.

Methodology: This study used a three-phase sequential mixed-methods design, consisting of an initial qualitative phase, a quantitative phase, and a follow-up qualitative phase. First, the open-ended written interviews were conducted to explore learners' emotional experiences. The findings were used to develop the questionnaire instruments. Survey data were then collected from Thai students at various proficiency levels. Two instruments were used: the Chinese Language Learning Enjoyment Scale and the Chinese Language Learning Anxiety Scale. Both instruments were adapted from validated scales and supplemented with context-specific items. Data were analyzed using descriptive statistics, principal component analysis, and correlation analysis. Lastly, face-to-face and written interviews were conducted. Content analysis was conducted to complement and further explain the quantitative findings.

Main Results: The results indicate that Thai learners generally report overall enjoyment and moderate levels of anxiety in the process of learning Chinese. Enjoyment was primarily associated with personal factors, particularly those related to individual learning experiences. Teacher-related factors also contributed to enjoyment, although to a lesser extent. Social factors had little influence. Personal factors were also identified as a major source of Chinese language learning anxiety. Difficulty understanding classroom instruction, low self-confidence, competition with peers, and communication difficulties were

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identified as common sources of anxiety among learners. Learning content was found to contribute more strongly to anxiety rather than enjoyment. There was no significant correlation between enjoyment and anxiety.

Discussions: The results are consistent with theoretical hypotheses according to which enjoyment and anxiety may co-occur during the language learning process. Therefore, they cannot be regarded as emotional opposites. The prominence of personal factors suggests that learners are highly sensitive to their own performance and progress. Differences in the distribution of emotional sources highlight the importance of instructional design. Learners' emotional experiences are also influenced by the difficulty of learning tasks.

Conclusions: This paper compares enjoyment and anxiety simultaneously among Thai learners of Chinese in different educational settings. It offers new empirical evidence from a non-target-language context, particularly in relation to learners' emotional experiences. The results underscore the importance of fostering learners' sense of accomplishment throughout the learning process. Meaningful language use activities should be actively promoted in classroom teaching. The content that is delivered to students should also be managed well to minimize anxiety. These findings have important implications for the sustainable development of Chinese language teaching in Thailand.

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Introduction

Emotions have become an important topic in educational psychology and second language acquisition (SLA) research (Dewaele, 2022). Emotional factors can influence language learning processes and outcomes. For many years, SLA research focused mainly on negative emotions, particularly foreign language anxiety. Horwitz et al. (1986) introduced the concept of foreign language classroom anxiety and developed the Foreign Language Classroom Anxiety Scale, providing an important foundation for subsequent research. Since then, the study of language anxiety has continued to develop. MacIntyre and Vincze (2017) identified three major stages in its development. The first was the confounded stage before the 1980s (Scovel, 1978). The second was the specialized stage, associated with the socio-educational model proposed by Gardner (1985). The third was the dynamic stage, which emerged in the 21st century (Gregersen et al., 2014). As research on language learning emotions has developed, increasing attention has also been given to positive emotions, particularly foreign language enjoyment.

In recent years, researchers have paid greater attention to positive emotions. This approach emphasizes learners' strengths and positive emotional experiences during language

learning. Pekrun's (2006) control-value theory suggests that learners' emotions are closely related to their perceptions of control over learning activities and the value they attach to these activities. The theory considers both positive emotions, such as enjoyment, and negative emotions, such as anxiety. This perspective has contributed to a broader understanding of emotions in SLA research (Li et al., 2018; MacIntyre & Vincze, 2017). Enjoyment and anxiety are not necessarily opposite ends of the same emotional dimension, as learners may experience both during language learning. Dewaele and MacIntyre (2014) therefore emphasized the importance of examining these two emotions together to better understand learners' emotional experiences.

Both enjoyment and anxiety are central emotional states in language classrooms (Piniel & Albert, 2018). They play a key role in second language learning (Dewaele & MacIntyre, 2014). Regardless of this significance, studies on these emotions among learners of Chinese as a Second Language (CSL) are sparse. In Thailand, Chinese is mainly learned as a foreign language, and opportunities to use it outside the classroom may be limited. Recent studies have identified several challenges faced by Thai learners of Chinese. Ning and Tananuraksakul (2024) found that students had limited opportunities to practice Chinese in daily life and used various strategies to manage learning anxiety. Srisinthon (2024) reported that communication anxiety was an important concern in online Chinese classes and that classroom interaction was related to learners' engagement. Lan and Tananuraksakul (2024) also highlighted the importance of teaching practices, classmates, and classroom experiences in shaping Thai vocational students' motivation to learn Chinese. These studies show the importance of examining emotions associated with Chinese language learning within the Thai context. However, they have focused mainly on university students and have addressed different aspects of language learning emotions. Less attention has been given to comparing the sources of enjoyment and anxiety and examining anxiety regulation strategies within a single study involving learners from different educational settings. To address this gap, the present study uses a three-phase mixed-methods design to investigate enjoyment and anxiety, their sources, the relationship between these emotions, and the anxiety regulation strategies employed by Thai learners of Chinese.

This study is important because it examines enjoyment and anxiety together and identifies their sources among Thai learners of Chinese. It also explores how learners manage anxiety in different educational settings. The findings may provide useful insights for improving Chinese language teaching and supporting learners' emotional needs in Thailand. To gain an initial understanding of the emotional experiences of Thai learners of Chinese, this study is guided by the following research questions:

RQ 1. What is the level of enjoyment among Thai learners of Chinese, and what are the major sources of enjoyment ?

RQ 2. What is the level of anxiety among Thai learners of Chinese, and what are the major sources of anxiety ?

RQ 3. What strategies do Thai learners of Chinese employ to regulate their anxiety while learning Chinese?

RQ 4. Is there a significant relationship between enjoyment and anxiety among Thai learners of Chinese?

Review of Literature

Research on Enjoyment in Second Language Learning

Since the 1990s, increasing attention has been paid to the role of positive emotions in language learning, particularly following the introduction of positive psychology into the field, which has been widely regarded as a major theoretical shift (Dong, 2022). Among the various positive emotions, enjoyment has received the greatest scholarly attention. Dewaele and MacIntyre (2014) conceptualized enjoyment as a positive emotion that contrasts with anxiety or as a psychological state arising from the satisfaction of learners' psychological needs. They argued that research on second language emotions should move beyond an exclusive focus on negative emotions and give greater consideration to positive experiences such as enjoyment (Dewaele & Li, 2020).

To facilitate empirical research, Dewaele and MacIntyre (2014) developed the Foreign Language Enjoyment Scale based on Ryan et al.'s enjoyment scale and conducted the first large-scale investigation involving 1,742 learners of English worldwide. Subsequent research further refined the instrument, resulting in a 10-item scale with a stable two-factor structure consisting of social and private dimensions (Li et al., 2018). Regarding the factors influencing enjoyment, Dewaele and MacIntyre were among the first researchers to identify both individual and social factors contributing to learners' enjoyment. In later studies, this framework was expanded to include teachers and peers, the social environment, and learner-related factors (Dewaele & Li, 2017). Empirical evidence has shown that teacher support, classroom experiences, and students' feelings of personal success are major sources of enjoyment in second language classrooms (Dong, 2022).

Compared with English language learning, enjoyment in CSL learning has received less research attention, and most studies have been conducted on learners in target-language settings. The available literature indicates that CSL learners' enjoyment is largely shaped by their learning experiences, teaching practices, classroom environment, and learning materials (Chen et al., 2021). However, most of these findings are based on studies of learners in China, which limits their applicability to non-target-language settings. However, due to the cultural and contextual differences, further research on enjoyment among Thai learners of Chinese in non-target language classrooms is needed.

Research on Anxiety in Second Language Learning

Anxiety has been one of the main concerns in second language (L2) learning research. The concept of communication anxiety in L2 studies was introduced by Gardner & Lambert (1972), and anxiety subsequently became widely recognized as an important affective variable that negatively affects language learning. Anxiety has also been identified as an important individual difference factor in L2 learning (Dewaele, 2022), and it continues to play a central role in research on second language emotions. MacIntyre (1999) also defined it as fear and other unpleasant emotions experienced when using a second language.

In theory, a number of influential models have been put forward, including Gardner's (1985) social-educational model, Krashen's (1982) Affective Filter Hypothesis, and Horwitz et al. 's (1986) the framework on foreign language anxiety. Despite these developments, no single theory has been developed that can successfully explain the concept of language anxiety. Anxiety has also been identified as an important individual difference factor in L2 learning

(Dewaele, 2022), and it continues to play a central role in research on second language emotions.

Gardner and Smythe (1975) developed the French Classroom Anxiety Scale, whereas the Foreign Language Classroom Anxiety Scale (FLCAS) developed by Horwitz et al. (1986) has become the most widely used measure in empirical research. Dewaele and MacIntyre (2014) proposed an eight-item version of the FLCAS. Empirical research has primarily focused on the sources and influencing factors of L2 anxiety and strategies for managing it. Some sources of anxiety are internal, such as personality and motivation, while others are external, such as instructional practices and cultural context (Horwitz et al., 1986). Regulation strategies include instructional modifications, strategy training, and learner self-regulation techniques such as cognitive strategies and attentional control (Xu & Kou, 2015).

Research on anxiety in CSL learning began relatively late but has expanded over the years. The literature has examined the sources of both anxiety and skill-related anxiety. Zhao (2022) also studied Thai learners of Chinese and found that learning experiences and teacher instruction were critical sources of anxiety. Overall, additional research is needed to investigate Chinese language learning anxiety among Thai learners.

Research on the Relationship Between Enjoyment and Anxiety

Imai's (2010) case study was among the first to examine both positive and negative emotions within the same research design and found that these emotions could influence learning outcomes differently depending on how they were interpreted and regulated. Research on the relationship between enjoyment and anxiety has been based mostly on cross-sectional studies, with only a small number of longitudinal studies. Some cross-sectional studies have found a significant negative correlation between these two emotions across various learning settings (Dewaele & Li, 2017). Nonetheless, an increasing number of researchers have argued that enjoyment and anxiety do not have a strong negative relationship but are relatively independent emotional dimensions as opposed to opposite ends of a single continuum (Dewaele & MacIntyre, 2014). As shown by Dewaele & MacIntyre (2014), foreign language enjoyment and anxiety are distinct constructs. Reducing anxiety does not necessarily increase enjoyment, and enjoyment may coexist with anxiety. Similarly, Dewaele (2022) held that these feelings do not oppose each other but complement each other.

There are some studies that have indicated that no significant correlation exists between enjoyment and anxiety. Chen et al. (2021) found no significant association between enjoyment and anxiety among novice-level learners of Chinese as a second language in China. Boudreau et al. (2018) found significant moment-to-moment changes in the relationship between enjoyment and anxiety in students studying French, and the correlations between them were negative or positive at different points in time. To date, no empirical study has specifically investigated the relationship between enjoyment and anxiety among Thai learners of Chinese, revealing a clear gap in the literature.

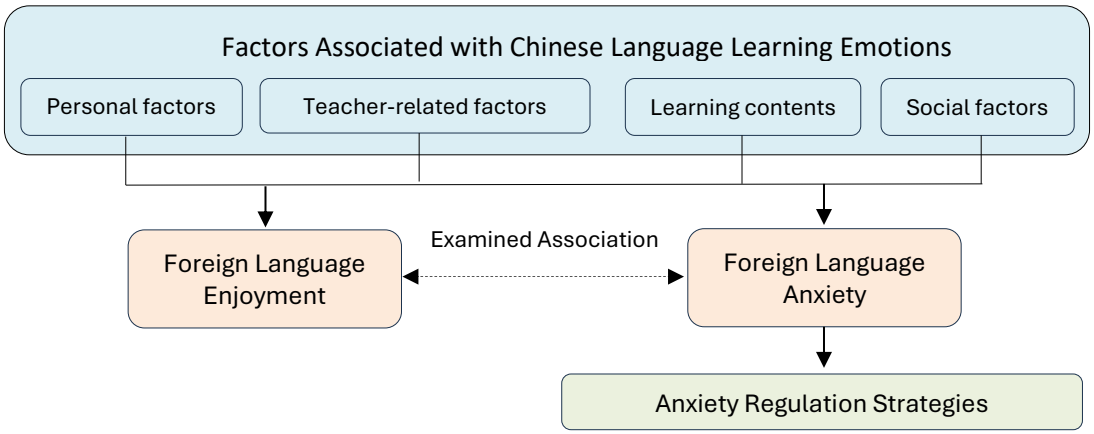
Conceptual Framework

Previous studies have shown that enjoyment and anxiety are important emotions in language learning. Research suggests that these emotions are associated with personal factors, teacher-related factors, learning content, and social factors (Dewaele & MacIntyre, 2014; Piniel & Albert, 2018). Although enjoyment and anxiety may occur together, they do not necessarily have a direct relationship. Studies have also highlighted the importance of anxiety regulation

strategies in helping learners manage emotional difficulties during language learning (Ning & Tananuraksakul, 2024). Drawing on these studies, the present research examines enjoyment and anxiety through four main factors: personal factors, teacher-related factors, learning content, and social factors. It also investigates the relationship between enjoyment and anxiety and explores the strategies learners use to regulate anxiety. Figure 1 presents the conceptual framework of the study, which guides the analysis and discussion of the findings.

Figure 1

Conceptual Framework of the Study



Research Methods

This study adopted a three-phase sequential mixed-methods design to examine enjoyment and anxiety among Thai learners. In the first phase, written interviews were conducted to explore learners' emotional experiences and inform the development of the research instruments. In the second phase, quantitative data were collected using the Chinese Language Learning Enjoyment Scale (CLLES) and the Chinese Language Learning Anxiety Scale (CLLAS). The questionnaire data were analyzed using SPSS to examine the levels and patterns of enjoyment and anxiety. In the third phase, written and face-to-face semi-structured interviews were conducted to explore learners' anxiety regulation strategies and gain further insight into their emotional experiences. Content analysis was used to identify recurring themes and patterns in qualitative data. By combining quantitative and qualitative findings, the study provides a more detailed understanding of enjoyment and anxiety in Chinese language learning.

Participants

The participants were learners of Chinese in Thailand. Participants were recruited from three main groups: undergraduate-students majoring in Chinese at Thai universities, secondary school-students, and learners enrolled in extracurricular Chinese language courses. The majority of the participants fell between 16 and 25 years of age.

The respondents varied in both the length of time they had studied Chinese and their proficiency levels, including beginner, intermediate, and advanced learners. All the participants were similar in that, they had a common cultural background despite the differences In total, 623 questionnaires were collected. After data screening and cleaning, 580 valid questionnaires were retained for analysis, yielding a valid response rate of 93.10%.

Instruments

Quantitative Instrument

Two questionnaires were employed in this study. The first was the CLLES which consisted of 15 items. Eight items were adapted from previously validated instruments, and the remaining seven were developed based on themes identified during the first round of written interviews. Specifically, five items were adapted from the Foreign Language Enjoyment Scale formulated by Li et al. (2018), with wording modified to reflect Chinese language learning, and three items were adapted from the scale developed by Dewaele and MacIntyre (2014). The remaining items focused on learners' interest in Chinese, enjoyment of learning, positive emotional experiences during learning, perceptions of teachers, perceptions of the classroom environment, and interactions with peers outside class. The CLLES was designed into three-dimensions: personal factors (6 items), teacher-related factors (4 items) and social factors (5 items). Items were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating greater enjoyment.

The second instrument was the CLLAS, which consisted of 21 items. Thirteen items were adapted from validated scales, including twelve items from Du's (2019) Foreign Language Classroom Anxiety Scale, which is based on Horwitz et al.'s (1986) FLCAS, and one item from Dewaele and MacIntyre (2014). Each of the items adapted was updated to portray Chinese as the target language. The remaining eight items were developed based on themes identified in the preliminary written interviews to capture anxiety experiences specific to Chinese language learning. The CLLAS was also organized into three dimensions: personal factors (19 items), teacher-related factors (2 items), and social factors (2 items), using the same five point-Likert scale, with higher scores indicating greater anxiety. As both instruments were adapted and partially self-developed, their reliability and validity were examined prior to further analysis.

Table 1

Reliability of the CLLES

Cronbach's Alpha	Number of Items
0.833	15

SPSS was used to analyze the CLLES in terms of reliability. Table 1 shows that the scale achieved a Cronbach's alpha coefficient of 0.833, which is greater than 0.80. Thus, all the items did not require removal or revision, indicating that the scale demonstrated good reliability.

Table 2

Reliability of the CLLAS

Cronbach's Alpha	Number of Items
0.908	21

Similarly, SPSS was used to test the reliability of the CLLAS. As presented in Table 2, the scale produced a Cronbach's alpha coefficient of 0.908 across 21 items. A value above 0.90 reflects very high reliability. Therefore, the results suggest that the CLLAS possesses excellent reliability and is suitable for subsequent statistical analyses. Validity refers to how well a measurement instrument represents the construct it is intended to measure, that is, whether it can capture the phenomenon being studied. The KMO measure of the sampling adequacy and

Bartlett's Test of Sphericity are frequently used in quantitative research to assess a dataset's suitability for factor analysis and to determine the construct validity of a scale.

Table 3

KMO Measure and Bartlett's Test of the CLLES

Indicator	KMO	Approx. Chi-square	Degrees of Freedom	p
Value	.867	2609.983	105	.000

The CLLES was analyzed using exploratory factor analysis. The KMO value of 0.867 indicates that the data were suitable for factor analysis. Furthermore, Bartlett's Test of Sphericity was statistically significant, indicating that the correlation matrix was not an identity matrix. These results indicate that the scale has acceptable construct validity.

Table 4

KMO Measure and Bartlett's Test of the CLLAS

Indicator	KMO	Approx. Chi-square	Degrees of Freedom	p
Value	.933	5155.233	210	.000

Exploratory factor analysis of the CLLAS yielded a KMO value of 0.93, indicating excellent sampling adequacy for factor analysis. Furthermore, Bartlett's Test of Sphericity was statistically significant, suggesting that the scale demonstrates strong internal construct validity.

Qualitative Research Instruments

For the written interviews, the study adopted a prompt-based format adapted from Li et al. (2018). Participants were provided with the following writing prompts:

(1) During Chinese learning (both in and outside the classroom), what situations or experiences bring you enjoyment? What makes you feel anxious or uneasy?

(2) When you experience anxiety in the process of learning Chinese, how do you regulate or cope with your emotions?

Before the face-to-face interviews began, participants were asked several background questions, including their gender, age, length of Chinese learning experience, and level of Chinese proficiency. These warm-up questions were also intended to put the participants at ease, thereby making them less tense during the interview. The primary question of the interview was then presented: In the process of learning Chinese, what would you typically do when you are anxious? All questionnaire administration and interview procedures were conducted in accordance with the ethical requirements of the participants' affiliated institutions.

Data Collection

This study had three stages of data collection.

A qualitative approach was used in the first stage, which was conducted in August 2025. The written interviews used an open-ended question asking learners to describe scenarios both inside and outside the classroom that made them feel enjoyment or anxiety when learning Chinese. The participants answered freely and were not restricted by the length or format of their responses. A total of 346 written answers were obtained and used to identify sources of

enjoyment and anxiety, as well as to develop the questionnaire. The second phase was conducted in September 2025 and employed a quantitative design. Data were collected primarily through paper-based questionnaires, with online questionnaires used when face-to-face administration was not possible. Overall, 623 questionnaires were received, and 580 were deemed valid after three screening rounds. The qualitative methods that were used to carry out the third stage integrated face-to-face and written interviews that took place in November 2025. The interview prompt focused on how learners regulated anxiety while learning Chinese. A total of fifteen participants were interviewed face-to-face, representing beginner, intermediate, and advanced proficiency levels. Written interviews were also completed by 208 students.

Data Analysis

Descriptive statistics, frequency analysis, principal component analysis and correlation analysis were all used in quantitative analysis. The descriptive statistics involved overall scores of enjoyment and anxiety, and the frequency analysis described the background characteristics of the participants. Principal component analysis was conducted to identify the underlying factors associated with enjoyment and anxiety, and correlation analysis was used to examine the relationship between the two emotional variables.

Content analysis was the primary qualitative analytical method used in this study. The initial reading of the texts was done repeatedly to gain a general idea and identify initial coding categories. The responses were then divided into meaning units and summarized to retain the key information. Following this process, categorical coding was performed, and categories were allowed to emerge inductively from the data rather than being predetermined. The texts were read repeatedly to refine and revise the categories, which ensured the analytical rigor and interpretive accuracy (Koc, 2010).

The coded categories were then grouped and synthesized into higher level themes based on their conceptual relationships. Themes were also quantified using frequencies and percentages and were presented in a table to determine the most common patterns. The qualitative analysis complemented and helped confirm the quantitative findings by providing additional insights into learners' emotional experiences.

Findings

RQ 1. What is the level of enjoyment among Thai learners of Chinese, and what are the major sources of enjoyment ?

Enjoyment Experience

To examine the level of enjoyment among Thai learners of Chinese, this study conducted a descriptive statistical analysis using SPSS. The CLLES had 15 items that were rated using a five-point Likert scale, and the total score was between 15 and 75. Based on the overall scores, learners' enjoyment levels were categorized into three groups: low, medium, and high enjoyment, as shown in Table 5.

Table 5

Grouping of Chinese Learning Enjoyment

Group	Score Range	N	Percentage	Mean
High enjoyment	56–75	414	71.38%	62.40
Medium enjoyment	36–55	162	27.93%	53.20
Low enjoyment	15–35	4	0.69%	34.00
Total	15–75	580	—	—

The findings indicate that Thai learners generally enjoy learning Chinese. The majority of the respondents (414 learners) fell under the high enjoyment category, and the average score was 62.40. The remaining 162 students fell within the medium-enjoyment category, with a mean score of 53.20, which was just below the threshold for high enjoyment. Only four learners were categorized in the low-enjoyment group, with a mean score of 34, which was also close to the threshold for medium enjoyment. Overall, the results suggest that enjoyment is a common experience among Thai learners, while very few reported low levels of enjoyment.

Table 6

Descriptive Statistics for Overall Chinese Learning Enjoyment

Emotion	N	Mean	Median	Range	Maximum	Minimum	Standard Deviation
Enjoyment	580	59.6	59.0	42.0	75.0	33.0	6.0

Table 6 indicates that the total mean of enjoyment was 59.6 with a median of 59.0, both of which fall within the high enjoyment category. This suggests that enjoyment was a common experience among learners, which is consistent with the findings reported in Table 5.

However, the 42-point range suggests that not all learners experienced the same level of enjoyment across all aspects of Chinese language learning. Despite these individual differences, the standard deviation of 6 indicates that overall enjoyment levels were relatively consistent across participants.

Sources of Enjoyment

To investigate the sources of enjoyment, this study adopted a mixed-methods approach that combined quantitative and qualitative analyses to examine enjoyment among Thai learners of Chinese. The findings from the two approaches are used to validate and complement one another.

Results from the questionnaire survey indicate an overall high level of enjoyment among Thai learners of Chinese. To further explore the sources of enjoyment, this study selected the three items with the highest mean scores and the three items with the lowest mean scores for in-depth analysis. This approach helps identify the aspects in which learners experience higher levels of enjoyment, as well as those associated with lower levels of enjoyment.

Table 7

Top Three Items with the Highest Mean Scores for Enjoyment

Item	Content	Mean	Rank
6	I feel very happy when I can use Chinese in my daily life.	4.66	1
1	I like Chinese.	4.33	2
5	I feel happy when I learn a lot in Chinese class.	4.27	3

The three highest mean items indicate the main sources of enjoyment. Using Chinese in daily life ranked first, followed by personal interest in Chinese, and a sense of achievement from learning gains. Students often reported a feeling of happiness when applying Chinese in real-life situations. These findings indicate that practical language use, personal interest, and learning progress are key sources of enjoyment. All three belong to the category of personal factors, which appear to play the most significant role in Thai learners' enjoyment of learning Chinese.

Table 8

Bottom Three Items with the Lowest Mean Scores for Enjoyment

Item	Content	Mean	Rank
13	After class, we often get together to study Chinese.	2.95	1
4	I am proud of my Chinese achievement.	3.56	2
5	There is a good atmosphere for learning Chinese around me.	3.60	3

The three lowest-mean items reflect aspects associated with comparatively low enjoyment. Two of them relate to the learning environment and belong to social factors. Learners interpreted the environment broadly, including classroom facilities and surrounding conditions, such as heat, poor ventilation, and construction noise. The second lowest item concerned pride in academic performance, suggesting that many learners were not fully satisfied with their performance and held high expectations for themselves. In general, the least enjoyable elements included the learning environment and academic pride, suggesting that social factors have the least influence on enjoyment in learning Chinese.

The sources of enjoyment in learning Chinese were explored through an open-ended question administered via written responses and interviews. Students were invited to respond freely to a question about what they enjoyed when learning Chinese, both inside and outside the classroom. There were also no constraints on words or form to prompt authentic expression. Participants were Chinese majors at a public university in Thailand and took part in the second round of data collection. A total of 346 responses were collected. After irrelevant or incomplete responses were excluded, 312 valid responses remained for analysis, yielding an effective response rate of 90.2%.

The qualitative data were analyzed using content analysis. Based on the qualitative findings and the factor structure identified in the quantitative analysis, the sources of enjoyment were classified into four major categories: personal factors (e.g. classroom performance, sense of achievement, personal experiences), teacher-related factors (e.g., teaching methods, teacher characteristics and performance), learning content, and social factors. Across these four categories, eight subcategories were identified as the primary qualitative sources of enjoyment among Thai learners of Chinese.

As learners often mentioned multiple sources of enjoyment, the analysis focused on frequencies and percentages rather than respondent counts. In total, 488 references related to enjoyment were found. Personal factors were the most prominent category, accounting for 242 references (49.59%). Within this category, sense of achievement was the most frequently referenced subcategory (143 references), followed by other personal experiences (68) and classroom performance (31). Commonly mentioned experiences included using Chinese in daily life, communicating with Chinese speakers, understanding teachers' speech, and interest in Chinese.

Teacher-related factors ranked second, with 99 references (20.29%). Within this category, teacher performance was the most frequently mentioned factor, followed by teaching methods and teacher characteristics. Students highlighted interactive tasks, teacher friendliness and humour, support, positive feedback, and clarity of the explanation. Learning content accounted for 78 references, particularly those related to new knowledge and Chinese culture, whereas social factors accounted for 69 references, making them the least frequently mentioned category. Table 9 summarizes the main themes, codes, frequencies, and representative quotes related to enjoyment in Chinese language learning.

Table 9

Qualitative Themes, Codes, and Representative Quotes of Enjoyment

Themes	Frequency (%)	Codes	Representative Quotes
Personal factors	49.59	Sense of achievement; personal experiences; classroom performance	"I feel happy when I can use Chinese to communicate with Chinese people."
Teacher-related factors	20.29	Teacher performance; teaching methods; teacher characteristics	"I enjoy classes because my teacher is friendly and explains clearly."
Learning content	15.98	New knowledge; Chinese culture	"I enjoy learning new words and Chinese culture."
Social factors	14.14	Social interaction	"I enjoy learning with my friends because we can help each other."
Total	100		

According to the qualitative findings, personal factors were the primary sources of enjoyment, followed by teacher-related factors, learning content, and social factors. These findings provide valuable insights into learners' needs and interests and highlight the importance of personal engagement and achievement in learning Chinese. By understanding these sources of enjoyment, teachers can design more engaging learning experiences, enhance learner motivation, and foster a positive classroom environment that supports language development over time.

RQ 2. What is the level of anxiety among Thai learners of Chinese, and what are the major sources of anxiety ?

Anxiety Experience

The CLLAS used in this study consisted of 21 items rated on a five-point Likert scale. Individual anxiety scores ranged from 22 to 125. Based on the total scores, learners' anxiety levels were classified into three groups: low anxiety (23–55), medium anxiety (56–90), and high anxiety (91–125). The distribution of anxiety levels is presented in Table 10.

Table 10

Grouping of Chinese Learning Anxiety

Group	Score Range	N	Percentage	Mean
High anxiety	91-125	36	6.21%	96.10
Medium anxiety	56-90	479	82.59%	74.40
Low anxiety	22-55	65	11.20%	49.28
Total	22–125	580	—	—

As shown in Table 10, anxiety was a common experience among Thai learners of Chinese. Most participants (82.59%) fell into the medium anxiety group, with a mean score of 74.40. A smaller proportion (11.20%) were classified as low anxiety, although their mean score was close to the lower threshold of the medium category. Only 6.21% of learners were in the high anxiety group, and their mean score was also near the upper cutoff of the medium range. Taken together, these findings suggest that Thai adult learners of Chinese commonly experience anxiety in the learning process, with most learners concentrated in the medium anxiety range, rather than at the extremes of very low or very high anxiety.

Table 11

Descriptive Statistics of Overall Chinese Learning Anxiety

Emotion	N	Mean	Median	Range	Maximum	Minimum	Standard Deviation
Anxiety	580	73.5	74.0	79.0	105.0	26.0	12.7

As shown in Table 11, the mean anxiety score was 73.5, with a median of 74.0, both of which fell within the medium anxiety range. This indicates that most learners experienced anxiety while learning Chinese, with the majority falling within the medium-anxiety category. This trend is in line with the findings presented in Table 10 that are group-based. Meanwhile, the minimum score of 26 and the maximum score of 105 produced a range of 79 points, indicating considerable variation in learners' anxiety experiences. Moreover, the standard deviation of 12.7 indicates substantial variation in anxiety levels among participants, suggesting that learners' emotional responses to Chinese language learning were not uniform.

Sources of Anxiety

To examine the sources of anxiety, the present study adopted a mixed-methods approach, combining quantitative and qualitative data to identify the factors underlying anxiety among Thai learners of Chinese. Triangulation of the two data sources helped validate and complement the findings, thereby strengthening the interpretation of the results.

The questionnaire findings indicated that most Thai learners experienced moderate levels of anxiety when learning Chinese. The CLLAS comprised 21 items. To further explore anxiety-inducing and anxiety-reducing factors in Chinese language learning, the five items with the highest mean scores and the five items with the lowest mean scores were selected for further analysis. This approach helped identify specific learning contexts that contributed to either higher or lower levels of anxiety.

Table 12

Top Five Items with the Highest Mean Scores for Anxiety

Item	Content	Mean	Rank
1	I feel anxious when I cannot understand what the teacher is saying in class.	3.89	1
12	I feel my classmates' Chinese proficiency is better than mine.	3.80	2
9	I feel anxious because my pronunciation is not accurate.	3.72	3
16	I feel anxious when the learning content is too difficult.	3.67	4
19	In daily life, I feel anxious when I need to speak Chinese but cannot express myself clearly.	3.61	5

The five items with the highest mean scores indicate situations that generated the greatest anxiety, all of which belong to individual factors. As shown in Table 12, the highest anxiety occurred when learners could not understand teachers' classroom explanations. This was followed by low confidence in learners' Chinese proficiency, especially when perceiving classmates as performing better, reflecting strong academic competition and high concern for learning outcomes. The third and fourth items relate to both personal effort and linguistic factors, such as the inherent difficulty of Chinese and negative transfer from the first language. The fifth item involves difficulties using Chinese in real-life contexts, underscoring the importance of practical language use. Notably, this contrasts with the enjoyment findings, where successful daily use of Chinese was the highest-rated source of enjoyment. Overall, major sources of anxiety include difficulty understanding instruction, perceived competition, low proficiency confidence, the difficulty of learning Chinese, and limited ability to apply Chinese in real-life situations.

Table 13

Bottom Five Items with the lowest Mean Scores for Anxiety

Item	Content	Mean	Rank
4	I feel embarrassed when I answer questions in class.	2.88	1
13	When speaking Chinese, I worry others will laugh at me.	2.96	2
14	I feel embarrassed when the Chinese teacher corrects many of my mistakes at once.	2.96	3
21	A poor learning environment makes me feel anxious.	2.99	4
11	Even when I am well prepared for class, I still feel anxious.	3.03	5

The five items with the lowest mean scores indicate aspects associated with relatively low anxiety. Four of these items relate to personal factors, while one concerns a social factor. As shown in Table 13, the lowest-anxiety items suggest that learners generally hold positive attitudes and a strong interest in learning Chinese. The item related to the learning environment ranked fourth, indicating that external conditions exert limited influence and that learners tend to focus on their own learning. The fifth item showed low anxiety because many learners disagreed with the statement, implying that adequate pre-class preparation helps reduce anxiety. Overall, factors linked to low anxiety include active classroom participation, concerns about peer reactions, teachers' error correction, the learning environment, and pre-class preparation. Taken together, both the highest and lowest anxiety items are mainly associated with personal factors, indicating that individual factors are the most influential source shaping learners' anxiety experiences.

Consistent with the qualitative exploration of enjoyment, content analysis was conducted to examine the sources of anxiety among learners Data were collected using an open-ended question administered through both written responses and interviews. Students were given a prompt asking them to describe situations, either inside or outside the classroom that made them feel anxious while learning Chinese.

The classification of anxiety sources was based on the factor structure identified in the anxiety scale, and the qualitative framework followed the same approach used in the enjoyment analysis. Based on this framework, four broad categories and ten subcategories were identified, as the key sources of anxiety among Thai learners of Chinese. Because individual learners often

attributed their anxiety to multiple factors, the analysis focused on the frequency and proportion of references rather than the number of respondents. Overall, 412 cases of anxiety were identified.

Personal factors constituted the largest category, accounting for 251 references (60.92% of all anxiety-related references). Within this category, personal frustration was the most frequently mentioned subcategory (111 references) followed by classroom performance (58 references). Other personal issues and examination-related anxiety each accounted for 41 references. Common themes included difficulty using Chinese in everyday life, uncertainty about communicating with native speakers, difficulty understanding teachers' explanations, fear of failing examinations, lack of confidence or shyness, and fear of being ridiculed by others.

Learning content ranked second, with 108 references (26.21%). Chinese was often termed challenging, complicated, or an intellectually challenging language by the learners. Teacher-related factors ranked third with 33 references, mainly relating to teaching methods, instructional pace, feedback, and time-related constraints associated with tasks. Social factors accounted for the smallest proportion of references (20 references, 4.85%), with peer comparison and work-related interference identified as the main concerns. Table 14 presents the main themes, codes, frequencies, and representative quotes related to anxiety in Chinese language learning.

Table 14

Qualitative Themes, Codes, and Representative Quotes of Anxiety

Themes	Frequency (%)	Codes	Representative Quotes
Personal factors	60.92	Personal frustration; classroom performance; personal concerns; examination anxiety	"I feel anxious when I can't understand what my teacher says in Chinese."
Learning content	26.21	Language difficulty	"Chinese is difficult for me, especially grammar."
Teacher-related factors	8.01	Teaching methods; teacher performance; teacher characteristics	"I feel nervous when the teacher asks me to finish a task in a short time."
Social factors	4.85	Peer comparison; work-related interference	"I feel stressed when my classmates speak Chinese better than I do."
Total	100		

The sources of anxiety were grouped primarily into four categories: personal factors, learning content, teacher-related factors, and social factors. Personal factors accounted for the largest proportion of anxiety sources, which was consistent with the quantitative findings. Comparison with the enjoyment findings indicates that learning content is a major source of anxiety, whereas teacher-related factors are more strongly associated with enjoyment, highlighting the important role of instructional design in shaping learners' emotional experiences.

RQ 3. What strategies do Thai learners of Chinese employ to regulate their anxiety while learning Chinese?

To gain a more comprehensive understanding of how Thai learners of Chinese regulate negative emotions during language learning, a third round of data collection was conducted. Written interviews and face-to-face interviews were used. The written interview included the following question: What happens when you become anxious during the process of learning Chinese? How do you control your emotions? Participants in the second-round questionnaire survey were selected for the interviews.

A total of 208 students participated in the written interviews, yielding 208 responses. All the collected materials were then systematically screened before the data analysis. Non-relevant or marginally related responses were discarded, leaving 185 valid responses for analysis and yielding a valid response rate of 88.94%.

The data were coded into three main themes: self-regulation, interpersonal regulation, and other strategies. The self-regulation theme included four subcategories: self-relaxation, self-reflection, self-improvement, and developing a positive mindset. Interpersonal regulation was subdivided into three categories: social and leisure activities, teacher student communication, and peer support. The third theme, labelled, "other," included the anxiety regulation techniques which were not included in the other two categories.

In line with the strategy that was applied in the previous qualitative analyses, the study recognized that learners employed various strategies to manage anxiety. Accordingly, frequencies and percentages were calculated based on the number of strategy references identified in the data rather than the number of respondents. A total of 477 anxiety-regulation strategies were identified.447. Self-regulation was the most common theme, accounting for 302 (67.56%) instances. This finding suggests that Thai learners of Chinese prefer self-managed strategies for coping with anxiety. One possible explanation is that cultural norms and personal preferences may encourage some learners to rely on self-directed approaches when managing anxiety.

Within the Self-regulation theme, the most prominent subcategory was self-relaxation, which accounted for 144 responses. Reported activities included listening to music, having a good meal, and having a walk alone, or enjoying scenery as a way of relaxing the learners. This finding suggests that when learners experience anxiety and pressure associated with language learning, they tend to adopt relaxation-based strategies to manage negative emotions. This finding may also reflect learners' awareness of their emotional states and their willingness to take active steps to reduce learning-related stress. These emotion-focused regulation strategies may help learners reduce anxiety and manage negative emotions during Chinese language learning. These strategies may also improve learning effectiveness and help learners cope with challenges.

The second most common subcategory was self-improvement, with 68 responses. This observation suggests that some learners exhibit a proactive and progressive mindset towards learning. They do not allow negative emotions to hinder their progress and instead attempt to overcome learning difficulties through self-improvement. This was combined with the development of a positive mindset which was also reported in 63 responses. Learners in this group appeared to demonstrate relatively strong emotion-regulation skills, reflecting an ability to manage negative emotions and channel them into positive motivation. They were more likely to interpret learning challenges through positive thinking and use adaptive cognitive thinking.

The rarest sub-category in self-regulation was self-reflection, which comprised 27 responses. Not only did these learners show interest in the critical analysis of their own learning processes, but they also had an opportunity to make positive changes following this process. This reflective ability enhances learners' sense of control in the language learning process and helps them respond effectively to the learning difficulties and challenges. Taken together, these self-regulation strategies suggest that Thai learners are thoroughly involved in the learning process and willing to be proactive about dealing with obstacles.

Interpersonal regulation was the second most common theme, accounting for 29.53% of the answers (132 instances). Within this theme, social and leisure activities were the most frequently reported subcategory, with 71 responses. This implies that students would tend to alleviate anxiety and stress through socialization and involvement in leisure activities when they experience difficulties in learning a language. Teacher-student communication and peer support followed, with 31 and 30 responses, respectively, indicating very similar levels of endorsement. Social and leisure activities may help learners develop supportive learning networks, increase engagement and enjoyment, reduce stress, foster positive emotional experiences, and contribute to a more supportive learning environment. The remaining theme, labeled "other," accounted for the lowest percentage (2.91%), representing 13 responses. This sub-group included interventions that did not fit within the self-regulation or interpersonal regulation themes. In the present study, these strategies included systematically reviewing key content before examinations, temporarily taking a break from Chinese learning, gaining motivation through imagining Chinese cultural settings or landscapes, and improving time management. Table 15 summarizes the main themes, codes, frequencies, and representative quotes related to anxiety regulation strategies among Thai learners of Chinese.

Table 15

Qualitative Themes, Codes, and Representative Quotes of Anxiety Regulation Strategies

Themes	Frequency (%)	Codes	Representative Quotes
Self-regulation	67.56	Self-relaxation; self-improvement; positive mindset; self-reflection	"When I feel anxious, I listen to music or take a walk to relax."
Interpersonal regulation	29.53	Social and leisure activities; teacher-student communication; peer support	"When I have difficulties, I talk to my friends or ask my teacher for help."
Other strategies	2.91	Exam preparation; temporary breaks; personal motivation; time management	"I review important lessons before exams and take a short break when I feel stressed."
Total	100		

Based on the analysis above, the anxiety-regulation strategies employed by Thai learners of Chinese can be summarized as follows. These strategies can be broadly categorized into two themes: self-regulation and interpersonal regulation. The main self-regulation strategies included self-relaxation, self-improvement, positive mindset development, and self-reflection. Interpersonal regulation primarily involved social and leisure activities, teacher-student

communication, and peer-assisted learning.

The findings have important pedagogical implications for Chinese language teachers. Teachers can adapt their instructional methods and classroom practices to create learning environments that are more responsive to learners' needs while also facilitating effective language acquisition. By developing a clear understanding of the psychological states of learners, teachers can design specific instructional activities and create learning resources that suit the actual needs of the learners, thereby reducing learner anxiety and achieving better learning outcomes.

The main question used in the face-to-face interviews was: When learning Chinese, what do you normally tend to do when you become anxious? The interview participants were selected from the third round of data collection, resulting in a total of 15 interviewees. To ensure participants' privacy, no identifying information, such as names or grade levels, is reported. Instead, participants are referred to sequentially as Student 1, Student 2, and so forth. The face-to-face interview data provided additional insights and helped corroborate the findings from the written interviews.

Based on the written interviews and quantitative analyses, the face-to-face interviews provided additional insights and helped confirm the written findings with regard to anxiety regulation among Thai learners of Chinese. The findings showed that, when experiencing anxiety, learners often employed self-regulation strategies such as engaging in relaxing activities, adjusting their mindset, enhancing self-confidence, and reflecting on their learning approaches. This trend is consistent with the written interview findings, in which self-regulation was the most frequently reported theme. Moreover, several interviewees reported discussing problems with teachers or seeking support from peers in order to obtain emotional support and learning advice, highlighting the role of interpersonal regulation in anxiety management. In general, the face-to-face interviews not only affirmed self-regulation as the central means of coping with anxiety but also provided concrete examples of practical regulatory actions, thereby enhancing the richness and validity of the qualitative data.

RQ 4. Is there a significant relationship between enjoyment and anxiety among Thai learners of Chinese?

Is there a correlation between enjoyment and anxiety in language learning?

Drawing on the data from secondary school students in the United Kingdom, Dewaele & Li (2017) found that learners' levels of L2 enjoyment were substantially higher than the levels of anxiety, and the correlation between the two sentiments had a very weak negative value. These results provide some indication that L2 enjoyment is not merely the positive side of an emotional affordance with anxiety on the negative side. Instead, L2 enjoyment and L2 anxiety appear to be relatively independent emotional dimensions with limited overlap. This means that learners may report both high and low scores in both dimensions at once, and that the decrease in L2 anxiety does not always result in the subsequent rise in their L2 enjoyment.

Based on previous findings, the present study hypothesized that a similarly weak negative relationship would exist between enjoyment and anxiety among Thai learners of Chinese. To test this hypothesis, a correlational analysis was conducted to examine the relationship between enjoyment and anxiety among Thai learners of Chinese.

Table 16

Correlation Analysis between Enjoyment and Anxiety

		Enjoyment
Anxiety	Correlation coefficient	-.067
	p value	.133

** Correlation is highly significant at the 0.01 level (two-tailed).

* Correlation is significant at the 0.05 level (two-tailed).

As shown in Table 16, no statistically significant correlation was found between enjoyment and anxiety among Thai learners of Chinese ($r = -0.067$, $p = .133 > .05$); therefore, the proposed hypothesis is not supported. This finding corroborates previous research suggesting that enjoyment and anxiety are not two opposite poles of a single emotional continuum but rather two relatively independent emotional dimensions that do not presuppose each other (Jang & Dewaele, 2019; Dewaele & MacIntyre, 2014). It also indicates that learners may simultaneously report high or low levels on both dimensions, and that reducing second language learning anxiety does not necessarily lead to an automatic increase in second language learning enjoyment (Dewaele & Li, 2017). These results provide valuable insights into the emotional experiences of Thai learners of Chinese, enriching researchers' and educators' understanding of the learning process and offering empirical reference points for future pedagogical practice and research.

Discussion

Foreign Language Enjoyment

The findings regarding the level and sources of enjoyment in Chinese language learning address the first research question. The findings indicate that learners generally enjoyed learning Chinese, with relatively high levels of enjoyment reported. However, enjoyment did not apply at all items of the questionnaire indicating that the positive emotional responses of learners differed under different learning contingencies. This finding is consistent with the previous research on Chinese learning enjoyment (Li et al., 2018).

The quantitative findings identified three principal sources of enjoyment among Thai learners of Chinese: personal factors, teacher-related factors, and social factors. Among these factors, personal factors exerted the strongest influence, followed by teacher-related factors, whereas social factors had a relatively weaker influence. These findings are consistent with those of Zhao (2022), who found that personal learning experiences and learners' perceived success were the two most influential factors contributing to enjoyment in Chinese language classrooms at Thai universities. Zhang and Tsung (2021) also reported similar findings among learners of Chinese as a second language. Meanwhile, previous studies have consistently shown that teacher instruction, peer communication, and classroom environment have significant effects on learners' enjoyment (Dewaele & Li, 2017; Li et al., 2018).

Through a focused examination of enjoyment among Thai learners of Chinese, the paper clarifies both its general level and its underlying sources. The results not only summarize the positive emotional experiences of learners studying Chinese but also give implications that may be considered in educational practice. These findings suggest that the focus on personal interaction and learning experiences can lead to sustained enjoyment and, thus, prompt even more engagement in Chinese language acquisition.

Foreign Language Anxiety

The second research question is addressed through an analysis of learners' anxiety levels. The findings indicate that Thai learners of Chinese experienced anxiety during the learning process and that overall anxiety levels fell within the moderate range. The same trends were found in previous studies. For example, Chen et al. (2021) found that international students learning Chinese in China exhibited anxiety levels ranging from moderate to moderately high, suggesting that anxiety is a common experience in Chinese language learning. Despite differences in learner populations and learning conditions, the current findings suggest that learners in both target-language and non-target-language environments tend to report moderate levels of anxiety when learning Chinese. The results align with the general pattern of previous research.

An analysis of enjoyment and anxiety indicates that the factors underlying these two emotions differ substantially. Although personal factors were the primary source of both emotions, teacher-related factors accounted for a greater proportion of enjoyment than of anxiety. Conversely, learning content played a relatively minor role in enjoyment but emerged as a more important factor in anxiety. This pattern highlights the importance of instructional processes in fostering positive emotional experiences while also underscoring the influence of linguistic difficulty and learning demands on anxiety. Meanwhile, social factors accounted for the smallest proportion of both enjoyment and anxiety sources, suggesting that social influences played a relatively limited role in learners' emotional experiences. However, this observation does not rule out the possibility that peer pressure may still serve as a possible cause of anxiety in some learners, as suggested by Dewaele and Li (2017).

Additional findings indicate that personal factors were the most prominent source of anxiety, followed by learning content, whereas teacher-related and social factors were less influential. Accordingly, learning content accounted for a greater proportion of anxiety-related responses than teacher-related or social factors. This finding contrasts with that of Zhao (2022), whose study of Chinese language classrooms in Thai universities identified classroom atmosphere as the second most important source of anxiety after individual learning experiences, whereas learning content played a relatively minor role. Nonetheless, both studies suggest that personal factors, particularly learners' individual learning experiences, are the most important sources of anxiety. This convergence suggests that learners' subjective perceptions and emotional reactions to the learning process play an important role in shaping anxiety in Chinese language classrooms. Based on these findings, Chinese language instruction should place greater emphasis on improving learners' individual learning experiences in order to reduce anxiety and promote emotional well-being.

Regulation Strategies for Foreign Language Anxiety

Self-regulation strategies refer to deliberate behavioral and cognitive actions that individuals use to manage their emotions, thoughts, and behaviors when facing academic or life-related challenges. Through self-regulation, learners can respond more effectively to challenges, solve problems, and achieve their goals. These strategies include, but are not limited to, goal setting, planning, attentional control, emotional management, problem solving, reflection, and the use of learning strategies.

The present study examined the strategies used by Thai learners to regulate anxiety, thereby addressing the third research question. The results showed two broad categories of

anxiety-regulation: self-directed and interpersonal. Self-directed regulation primarily consists of self-relaxation, self-improvement, positive mindset development, and self-reflection. Interpersonal regulation primarily involved social and leisure activities, teacher-student communication, and peer-assisted learning. These results have important pedagogical implications for Chinese language teachers. By understanding learners' preferred regulation strategies, teachers can adapt instructional practices and classroom routines to better address learners' emotional needs, thereby creating a more supportive learning environment and facilitating more effective Chinese language learning.

By taking learners' psychological needs into account, teachers can develop more targeted instructional activities and learning resources that better address learners' needs. These practices may help learners to reduce anxiety and improve learning outcomes. In this regard, Horwitz et al. (1986) identified two principal approaches to reducing learner anxiety: alleviating classroom learning pressure and helping learners develop anxiety-coping strategies. While the study did not directly address self-regulation, its second recommendation aligns closely with the development of learners' anxiety-regulation skills.

Relationship Between Enjoyment and Anxiety

The fourth research question was to determine the relationship between enjoyment and anxiety. The findings showed no significant correlation between enjoyment and anxiety among Thai learners of Chinese.

Most studies examining the relationship between these emotions have employed cross-sectional designs, whereas relatively few have adopted longitudinal approaches. Cross-sectional studies have reported a strong negative relationship between enjoyment and anxiety across a variety of second language learning contexts (Dewaele & Li, 2017). Other researchers have argued that enjoyment and anxiety exhibit only a weak negative correlation and remain conceptually independent, as neither necessarily presupposes the occurrence of the other (Dewaele & MacIntyre, 2014). For example, Dewaele and MacIntyre (2014) argued that foreign language enjoyment and foreign language anxiety are distinct emotional constructs. Although these emotions may co-occur, the absence of classroom anxiety does not necessarily imply the presence of enjoyment, just as enjoyment may exist alongside anxiety. Similarly, Dewaele & Li (2017) argued that enjoyment and anxiety should not be viewed as mutually exclusive emotions but rather as complementary dimensions that may coexist during the language learning process.

In comparison, other studies have found no significant relationship between enjoyment and anxiety. Chen et al. (2021) similarly found no significant correlation between enjoyment and anxiety among 156 novice-level international students studying Chinese in China. The findings of the present study are in line with this research. To date, very few empirical studies have specifically investigated the relationship between enjoyment and anxiety among Thai learners of Chinese. The present findings contribute to a more comprehensive understanding of the emotional experiences of Thai learners and add to the growing body of research on their language-learning processes. These findings can also be used as a benchmark in future pedagogical practice and empirical studies.

Pedagogical Implications

The findings offer several implications for Chinese language teaching in Thailand. First, teachers should pay greater attention to learners' individual experiences, as personal factors

were the main sources of both enjoyment and anxiety. Providing positive feedback and helping students recognize their progress may increase enjoyment and confidence. Second, teachers should adjust the difficulty and pace of learning activities to reduce anxiety, particularly when students encounter challenging language content. Third, more opportunities to use Chinese in real life situations should be provided, as successful communication can increase enjoyment and motivation. These practices may help create a more supportive learning environment for Thai learners of Chinese.

Limitations of the Study

This study still has some limitations. First, the data were collected through questionnaires and interviews, which relied on participants' self-reports and may have been influenced by personal perceptions. Second, the participants were Chinese language learners from selected educational backgrounds in Thailand, which limits the generalizability of the findings. Third, the quantitative data were collected at one point in time, making it difficult to examine changes in enjoyment and anxiety over time or establish causal relationships. Future studies could use longitudinal designs, include learners from different educational and cultural backgrounds, and combine self-reported data with classroom observations to provide a more complete understanding of emotions in Chinese language learning.

Conclusion

This study investigated enjoyment and anxiety in Chinese language learning among Thai learners and found the following important results. To begin, most of the respondents noted a sense of enjoyment in the process of acquiring Chinese with a comparatively high degree of enjoyment in general. The quantitative findings indicated that enjoyment was largely tied to three factors, namely, personal factors, teacher-related factors, and social factors. Among these factors, personal factors exerted the strongest influence, followed by teacher-related factors, whereas social factors had a comparatively weaker influence. The qualitative findings further identified four sources of enjoyment: personal factors, teacher-related factors, social factors, and learning content. Personal factors were the most salient source of enjoyment, reflecting learners' strong engagement with positive learning experiences. Teacher-related factors were also prominent, highlighting the importance of instructional practices. Learning content and social factors likewise contributed to enjoyment, although to a lesser extent. Overall, the relative importance of personal factors, teacher-related factors, learning content, and social factors was broadly consistent across the quantitative and qualitative analyses.

Similarly, most Thai learners also experienced anxiety during Chinese learning, with anxiety levels generally falling within a moderate range. Quantitative analyses identified personal factors as the most critical source of anxiety. This finding was further corroborated by qualitative evidence, which showed that anxiety stemmed mainly from personal factors, learning content, teacher-related factors, and social factors. Among these, personal factors again constituted the dominant source, underscoring learners' heightened concern with their own learning experiences. Learning content ranked next in importance, suggesting the need for careful curricular design. Teacher-related and social factors accounted for smaller but comparable proportions. Taken together, both descriptive and qualitative findings consistently indicate that

personal factors are the primary source of anxiety among Thai learners of Chinese.

Regarding anxiety regulation, learners reported using two broad categories of strategies: self-regulation and interpersonal regulation. Self-regulation strategies included relaxation, self-improvement, the development of a positive attitude, and self-reflection. Interpersonal regulation strategies included social and leisure activities, teacher-student communication, and peer support.

Lastly, the correlational analysis did not reveal a significant correlation between enjoyment and anxiety, suggesting that these two emotions are not opposite ends of the same continuum but rather comparatively independent emotional constructs in Chinese language learning.

This study investigates enjoyment and anxiety simultaneously among Thai learners of Chinese, focusing on their sources and the relationship between the two emotions. The study included a diverse sample of Thai learners of Chinese from high schools, private tutoring institutions, and university Chinese programs. The broad recruitment of participants across multiple educational settings and the large sample size are significant strengths of the present study.

Methodologically, this study employed qualitative content analysis to examine how learners understood and managed their emotional experiences and anxiety-regulation strategies while learning Chinese. This method provided a detailed understanding of learners' affective experiences and coping strategies, complementing the quantitative findings and offering additional insight into the role of affective factors in second language acquisition.

Author Contributions

ZW: Conceptualization, Methodology, Formal Analysis, Validation, Investigation, Writing – Original Draft Preparation, Writing – Review and Editing, and Visualization. MC: Investigation, Validation, Project Administration, Supervision, Resources, Writing – Original Draft Preparation, and Writing – Review and Editing.

Declaration of the Use of Generative AI

During the preparation of this manuscript, the authors used ChatGPT to assist with language editing and polishing of the draft. The tool was used solely to improve clarity, grammar, and overall readability. The authors reviewed and revised the output as necessary and take full responsibility for the content of the manuscript.

Ethics

The researcher completed research ethics training and strictly adhered to ethical principles throughout the study. All participants were informed of the purpose and procedures of the research, and their participation was entirely voluntary. Informed consent was obtained prior to data collection. Participants were assured that their responses would remain confidential, their identities would be protected, and the collected data would be used solely for academic research purposes. The study was conducted with due consideration for participants' rights, privacy, and well-being.

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