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Integrating Mindfulness Meditation with Teaching Chinese Language as a Foreign Language in a Private University in Thailand

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Abstract

This study explored the impact of integrating mindfulness meditation into Chinese language teaching at G University in Thailand, aiming to understand its effects on students' anxiety levels and identify associated challenges and benefits. A mixed-methods approach, involving a 15-item questionnaire and student reflections, was employed. Quantitative results showed that the 8-week course significantly improved students' "acting with awareness" in mindfulness (Q5: pre-session M=4.53, post-session M=4.64, p=0.049) and effectively reduced anxiety in most areas of Chinese language learning, including classroom speaking anxiety (Q6: t=2.38, p=0.032), mistake-related worry (Q7: t=2.94, p=0.011), and comprehension anxiety (Q8: t=2.56, p=0.022). However, pronunciation evaluation anxiety (Q9) showed no significant reduction (p=0.063). Qualitative findings revealed challenges such as time management and mastering mindfulness skills, while benefits included reduced anxiety (73% of students), improved focus (67%), and enhanced self-awareness. These results imply that mindfulness meditation can enhance the Chinese language learning experience. Future research should expand the sample size and develop more targeted teaching strategies to optimize its integration.

Keywords*: Mindfulness Meditation, Chinese Language, Teaching Chinese as a Foreign Language, Thai CFL Students*

1. Introduction

In recent decades, the intersection of mindfulness meditation and education has gained scholarly attention for its potential to enhance cognitive functioning and emotional well-being (Kabat-Zinn, 2003; Baer, 2003). In the context of language learning, mindfulness has been shown to reduce anxiety and improve focus, particularly in foreign language classrooms (Gregersen & MacIntyre, 2014). However, its application in teaching Chinese as a Foreign Language (CFL) remains underexplored, especially in Southeast Asian contexts, like Thailand, where learners face unique challenges, such as tonal complexity and cultural barriers.

Thailand's growing economic and cultural ties with China have spurred demand for CFL education, but educators grapple with students' high anxiety levels, limited motivation, and the complexity of Chinese characters and tones (Shen, 2005; Tsung & Cruickshank, 2009). Mindfulness meditation, with its emphasis on present-moment awareness and non-judgmental observation, presents a promising approach to addressing these issues. This study aims to bridge the research gap, by investigating how mindfulness can be integrated into CFL classrooms at a private Thai university, specifically examining its impact on students' anxiety and learning outcomes.

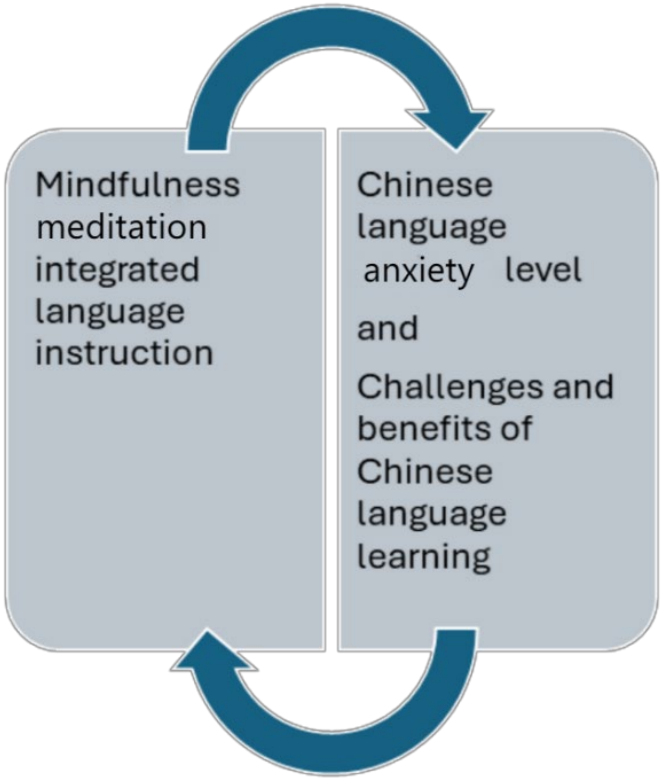

Figure 1. Conceptual Framework

2. Research Objectives

2.1 To explore the relationship between mindfulness meditation instruction and Thai university students' anxiety levels when studying Chinese as a foreign language.

2.2 To identify the challenges and benefits of incorporating mindfulness meditation and teaching Chinese as a foreign language in a Thai university context.

3. Research Questions

3.1 What is the relationship between mindfulness meditation instruction and Thai university students' anxiety levels when studying Chinese as a foreign language?

3.2 What are the challenges and benefits of integrating mindfulness meditation into Chinese as a foreign language teaching in a Thai university context?

4. Literature Review

4.1 Mindfulness Meditation in Educational Practices

Mindfulness, defined as "the non-judgmental awareness of the present moment" (Kabat-Zinn, 2003), has been widely studied for its psychological benefits, including stress reduction and emotional regulation (Brown & Ryan, 2003). In education, mindfulness practices have improved focus, academic performance, and classroom engagement (Roeser et al., 2012). In language learning, mindfulness has shown potential to alleviate foreign language anxiety (FLA), a well-documented barrier to proficiency (Horwitz et al., 1986). For example, Zhang (2018) found that mindfulness exercises reduced FLA among Chinese EFL students, enhancing their vocabulary retention and comprehension.

Global research on mindfulness in language education highlights its cross-cultural applicability: in the U.S., mindfulness-based interventions reduced ESL learners' speaking anxiety (Gregersen & MacIntyre, 2014); in Japan, they improved focus during kanji learning (Tsuda & Nakata, 2013). These findings support the potential of mindfulness in CFL contexts beyond Thailand.

4.2 Chinese Language Education in Thailand

Thai students learning Chinese face unique challenges: the phonological differences between Thai and Mandarin, exam-oriented curricula prioritizing HSK (Hanyu Shuiping Kaoshi) preparation over communicative skills, limited exposure to native speakers, and cultural disparities in educational values (Wang & Li, 2018; Pongcharoen, 2020). A survey of Thai CFL educators identified linguistic complexity (25%), teacher shortages (15%), and learning anxiety (15%) as key obstacles (Figure 1). Mindfulness meditation can address these by reducing anxiety and fostering a more supportive learning environment.

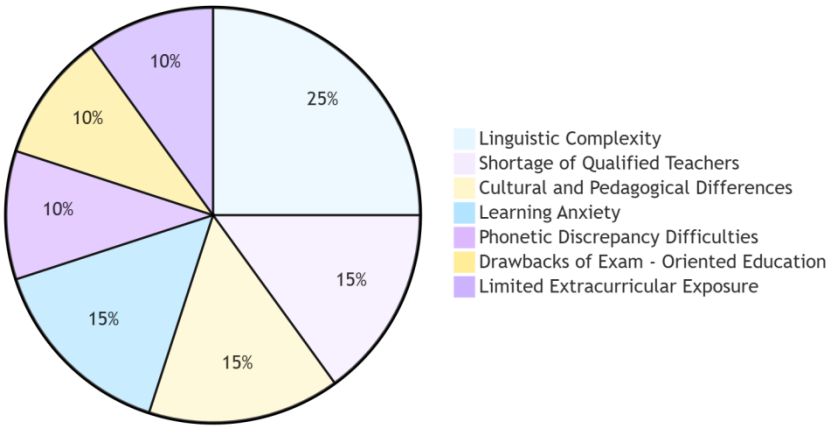

Figure 2: The proportions of various challenges in Thai Chinese language education

Source: Compiled by Researcher, 2025

4.3 Anxiety and Language Learning

Language learning anxiety (LLA) significantly impacts students' motivation and performance. For Thai learners of Chinese, LLA stems from the fear of making mistakes (25%), pronunciation difficulties (20%), and cognitive overload from character memorization (15%) (Figure 2). The Foreign Language Classroom Anxiety Scale (FLCAS) measures these dimensions, highlighting how anxiety diverts cognitive resources, impairing attention and working memory (Eysenck et al., 2007). Mindfulness mitigates LLA by promoting present-moment focus, and reducing emotional reactivity (Gregersen & MacIntyre, 2014).

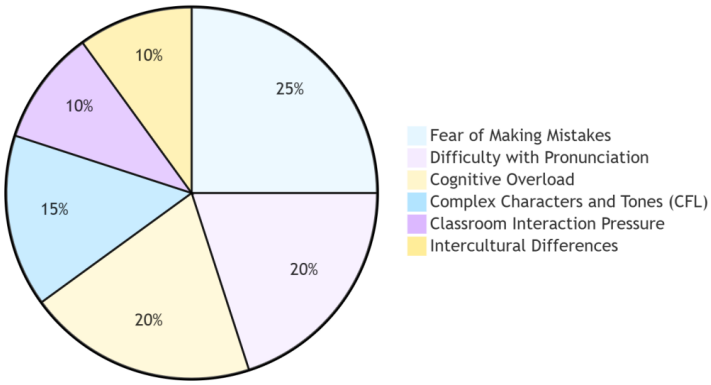

Figure 3. The proportion of various factors contributing to language learning anxiety
Source: Compiled by Researcher, 2025

4.4 Research Gaps

While mindfulness has been studied in general education and Western language contexts, its application in Thai CFL remains under-researched. Key gaps include:

4.4.1 A lack of studies exploring the long-term effects of mindfulness in Thai CFL classrooms.

4.4.2 Insufficient data on how cultural factors influence mindfulness practice adoption.

5. Methodology

5.1 Research Design

This mixed-methods study combined quantitative and qualitative approaches. The quantitative component used a modified 15-item questionnaire, adapted from the Five Facet Mindfulness Questionnaire (FFMQ) and FLCAS, measuring mindfulness awareness

(Q1-Q5), language anxiety (Q6-Q10), and self-perception (Q11-Q15) on a 5-point Likert scale. The qualitative component involved pre- and post-session reflections to explore students' experiences.

Table 1: Construct of the Questionnaire

Factor Dimension	Definition	Item Number
Observing	The ability to notice and be aware of one's emotions, thoughts, and sensations in the present moment. In the context of this study, it refers to students' awareness of their internal and external experiences during Chinese language learning. For example, "I notice when my mood changes."	Q1
Describing	The capacity to verbally express one's inner experiences, feelings, and observations. In the Chinese language learning context, it could involve students' ability to describe their thoughts and emotions related to learning Chinese.	Q2
Acting with Awareness	Being fully present and engaged in an activity, with conscious attention to one's actions and their consequences.	Q5
Non-Judgement of Inner Experience	Accepting one's thoughts and feelings without criticism or evaluation. In the Chinese language learning scenario, "I judge myself harshly when I make a mistake" helps assess students' tendency to judge themselves negatively during the learning process.	Q3
Non-Reactivity to Inner Experience	Not reacting impulsively to one's thoughts and emotions, maintaining a calm and composed state. This is about students' ability to stay composed during Chinese language learning, even when facing challenges or negative emotions.	Q4
Communication Apprehension	Students worry about communicating in a foreign language in the classroom. They are afraid that their expressions are not fluent or accurate, which leads to feelings of nervousness and unease during communication. For example, "I get nervous when I have to speak Chinese in class."	Q6
Fear of Negative Evaluation	Students are afraid of receiving negative evaluations from others (such as teachers and classmates). They worry that their performance in foreign language learning will be belittled, which can cause anxiety	Q9

Factor Dimension	Definition	Item Number
	during the learning process. For example, "I fear being negatively judged by others for my Chinese pronunciation."	
Anxiety due to Language Learning Difficulties	The complexity of foreign language learning itself, such as difficulties in vocabulary, grammar, pronunciation, and other aspects, may make students feel anxious. For instance, "I worry about making mistakes in Chinese", and "I feel anxious when I do not understand what the teacher is saying in Chinese", reflect this anxiety related to learning difficulties.	Q7，Q8
Classroom Environment Anxiety	Factors such as the classroom atmosphere, teaching methods, and teacher-student interaction patterns can also trigger students' anxiety.	Q10
Self-Efficacy	One's belief in one's ability to succeed in a particular task or achieve a specific goal. In the context of Chinese language learning, "I believe I can learn Chinese successfully", and "I feel confident in my ability to remember Chinese vocabulary", reflect students' self-efficacy in learning Chinese.	Q11，Q12
Motivation	The drive or desire to engage in an activity, in this case, learning Chinese. "I feel motivated to improve my Chinese skills" and "I enjoy learning Chinese, even when it is difficult" indicate students' motivation levels in learning the language.	Q13
Satisfaction	One's contentment or fulfillment with a particular experience, here related to Chinese language learning. "I find learning Chinese stressful" can be seen as an inverse measure related to satisfaction, as high stress may imply lower satisfaction; also, positive statements about enjoyment can be related to satisfaction.	Q14，Q15

5.2 Sample and Context

Fifteen undergraduate students from the Chinese Department at G University, Thailand, participated in an 8-week experimental course (2 sessions / week, 1 hour / session). The sample included sophomores and juniors, with varying Chinese proficiency levels, recruited via purposive sampling, due to resource constraints and the exploratory nature of the study.

The small sample size (n=15) may limit generalizability. To address this, we ensured diversity in proficiency levels (beginners: 40%, intermediate: 50%, advanced: 10%) and used triangulation of quantitative and qualitative data to validate findings. Additionally, we acknowledge that voluntary participation may introduce selection bias (students interested in mindfulness may have been more motivated), and we discuss this in the limitations section.

5.3 Instruments and Validity

5.3.1. Speaking Lessons

The study employed a mixed-methods approach, integrating quantitative and qualitative instruments to explore the integration of mindfulness meditation in Chinese as a Foreign Language (CFL) teaching. The key instruments included:

1. Modified Questionnaire

Adapted from the Five Facet Mindfulness Questionnaire (FFMQ) and Foreign Language Classroom Anxiety Scale (FLCAS), the 15-item questionnaire was designed to measure:

Mindfulness Awareness (Q1–Q5): Assessing dimensions such as observing, describing, acting with awareness, non-judgement of inner experience, and non-reactivity to inner experience.

Language Anxiety (Q6–Q10): Focusing on communication apprehension, fear of negative evaluation, anxiety due to learning difficulties, and classroom environment stress.

Self-Perception in Learning Chinese (Q11–Q15): Evaluating self-efficacy, motivation, and satisfaction.

The questionnaire used a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree), allowing quantitative analysis of students' attitudes and experiences.

2. Student Reflections

Qualitative data were collected through pre-session and post-session reflections, prompting students to share their subjective experiences, challenges, and the benefits of integrating mindfulness. Sample prompts included:

"How did mindfulness meditation affect your stress or anxiety levels during Chinese lessons?"

"What benefits did you experience from integrating mindfulness into your learning process?"

3. Ethical Approval and Consent Forms

The study obtained ethical approval from the Ethics Review Board of Rangsit University (COA No. RSUERB2025-001) and included informed consent

forms for participants, ensuring confidentiality and voluntary participation.

5.3.2. Validity and Reliability Testing

1) Content Validity

The questionnaire and reflection prompts were validated using the Index of Item-Objective Congruence (IOC) (Rovinelli & Hambleton, 1977). Three experts (a Chinese language educator, a Thai linguist, and a mindfulness practitioner) rated each item for relevance to the research objectives:

Rating Scale: +1 (clearly meets objectives), 0 (uncertain), -1 (does not meet objectives).

Retention Criteria: Items with an IOC ≥ 0.67 were retained. For example:

Q5 ("I am aware of my thoughts as they arise") had an IOC of 0.67, meeting the criteria.

Ambiguous items (e.g., Q2 initial phrasing) were rephrased to improve clarity, such as changing "I find it difficult to focus on the present moment" to "I find it easier to focus on the present moment during lessons" for post-session assessment.

2) Reliability Testing

Quantitative Instrument (Questionnaire): A pilot test with 30 students from a similar population yielded a Cronbach's alpha coefficient of 0.831, indicating high internal consistency (Nunnally, 1978).

Qualitative Instrument (Reflections): Intercoder reliability was established by two independent researchers, coding the same set of reflections. Using Cohen's kappa, the agreement rate for theme identification was 0.81, reflecting substantial reliability (Landis & Koch, 1977). Discrepancies were resolved through discussion with a third expert.

3) Cross-Cultural Validity

To ensure cultural relevance for Thai students:

3.1) The questionnaire was translated into Thai, and back-translated into English, by bilingual experts, to prevent semantic loss.

3.2) Items were adapted to address Thai-specific challenges, such as replacing generic language anxiety prompts with references to Chinese tones and characters (e.g., "I feel anxious when trying to pronounce Chinese characters correctly").

5.3.3. Intercoder Reliability Score

For the qualitative reflections, intercoder reliability was quantified as follows:

Thematic Analysis: Two coders independently identified themes

(e.g., "anxiety reduction," "focus improvement") in the reflections.

Cohen's Kappa: The kappa coefficient for theme coding was 0.81, indicating strong agreement beyond chance.

Example Agreement: In post-session reflections, 11 out of 15 students mentioned "reduced anxiety," with coders agreeing on the theme categorization in 93% of cases.

This rigorous validation process ensured that the instruments accurately measured the constructs of interest, and that the findings were both reliable and culturally appropriate for the Thai CFL context.

5.4 Data Collection and Analysis

Quantitative data were analyzed using descriptive statistics, paired t-tests, and correlation analysis. Qualitative data were coded for themes (e.g., anxiety reduction, focus improvement) and quantified via frequency counts. Triangulation of methods ensured comprehensive insights into mindfulness' impact.

Table 2: Data Collection and Procedures used from January 7th to February 27th, 2025

Procedures	Tasks	Time
A consent form, and vote for the class timetable	The researcher provided an overview of the research aims, and addressed inquiries from the participants. Subsequently, all individuals within the class signed a consent form. All participants voted in the poll for the class timetable (Tuesdays & Thursdays 8:00-9:00 p.m., Beijing Time)	60 mins
Week 1	Introduction to Mindfulness and Chinese Language Learning	120 mins
Week 2	Mindfulness Practices for Language Learning	120 mins
Week 3-6	Mindful Reading & Writing Cultivating Mindful Communication Skills	480 mins
Week 7	Mindfulness & Cultural Understanding	120 mins
Week 8	Completion of the post-session questionnaire and reflections	6 ns

6. Results

6.1 Mindfulness and Anxiety: Quantitative Findings

1) Descriptive Statistics

Pre-session assessments revealed distinct patterns in students' mindfulness and anxiety levels. For mindfulness awareness (Q1–Q5), the overall mean score was moderate (M = 3.69, SD = 1.17), with "acting with awareness" (Q5) already showing relatively high baseline performance (M = 4.53, SD = 0.83), suggesting students had some prior capacity to focus on tasks. In contrast, "describing inner experiences" (Q2) scored the lowest (M = 2.67, SD = 1.23), indicating difficulty articulating their thoughts and feelings related to Chinese learning—a potential barrier to self-reflection.

Language anxiety (Q6–Q10) showed a higher overall mean (M = 3.12, SD = 1.30), with "communication apprehension" (Q6: "I get nervous when I have to speak Chinese in class") scoring the highest (M = 3.73, SD = 1.16), reflecting significant discomfort with oral participation. Pronunciation-related anxiety (Q9: "I fear being negatively judged for my Chinese pronunciation") also ranked high (M = 3.40, SD = 1.30), aligning with prior research on Thai learners' struggles with Mandarin tones (Pongcharoen, 2020).

Post-session results demonstrated notable improvements. Mindfulness awareness increased overall (M = 3.96, SD = 0.93), with "acting with awareness" (Q5) showing the most statistically significant gain (pre: M = 4.53; post: M = 4.64, p = 0.049). This suggests that the 8-week mindfulness intervention specifically strengthened students' ability to stay present during language tasks, such as character writing or listening exercises. "Describing inner experiences" (Q2) also improved (pre: M = 2.67; post: M = 2.33, SD = 1.18), indicating enhanced capacity to verbalize their learning experiences—likely a result of regular reflection prompts.

For anxiety, the overall mean decreased significantly (M = 2.55, SD = 1.22). "Communication apprehension" (Q6) dropped from M = 3.73 to M = 3.20 (SD = 1.21), and "mistake-related worry" (Q7: "I worry about making mistakes in Chinese") fell from M = 3.13 to M = 2.53 (SD = 1.25). These reductions were mirrored in qualitative data, where students frequently mentioned feeling "less afraid to speak up" in post-session reflections.

Notably, pronunciation anxiety (Q9) showed a non-significant trend toward reduction (pre: M = 3.40; post: M = 2.20, SD = 1.21; p = 0.063). This aligns with the qualitative finding that 40% of students (6/15) still reported frustration with tonal accuracy, suggesting that mindfulness alone may not fully address phonological challenges, which require targeted linguistic practice.

Table 3: Descriptive Statistics (Q1 - Q10)

Item	Pre-Questionnaire		Post-Questionnaire	
	Mean (M)	Standard Deviation (SD)	Mean (M)	Standard Deviation (SD)
Q1. I notice when my mood changes.	4.47	0.92	4.80	0.41
Q2. I find it difficult to focus on the present moment.	2.67	1.23	2.33	1.18
Q3. I judge myself harshly when I make a mistake.	3.00	2.47	1.25	1.41
Q4. I notice my feelings without getting lost in them.	3.40	1.35	3.80	1.08
Q5. I am aware when I get lost in thoughts.	4.53	0.83	4.64	0.64
Q6. I get nervous when I have to speak Chinese in class.	3.73	1.16	3.20	1.21
Q7. I worry about making mistakes in Chinese.	3.13	1.41	2.53	1.25
Q8. I feel anxious when I do not understand what the teacher is saying in Chinese.	2.87	1.25	2.73	1.33
Q9. I fear being negatively judged by others for my Chinese pronunciation.	3.40	1.30	2.20	1.21
Q10. I feel stressed when I have to participate in Chinese speaking activities.	2.67	1.45	2.13	1.13

2) Paired t-Test Results

Paired t-tests confirmed statistically significant changes in key areas (Table 4). Classroom speaking anxiety (Q6) showed a significant reduction ($t = 2.38$, $df = 14$, $p = 0.032$, Cohen's $d = 0.61$), indicating a meaningful practical effect. Similarly, "mistake-related worry" (Q7) and "comprehension anxiety" (Q8: "I feel anxious when I do not understand the teacher") both showed significant decreases ($t = 2.94$, $p = 0.011$, $d = 0.75$; $t = 2.56$, $p = 0.022$, $d = 0.66$, respectively), suggesting mindfulness helped students manage

stress from errors and confusion.

Correlation analysis revealed a strong negative relationship between post-session mindfulness scores and anxiety levels. For example, "non-reactivity to inner experience" (Q4: "I notice my feelings without getting lost in them") correlated negatively with Q6 ($r = -0.62$, $p < 0.01$) and Q7 ($r = -0.58$, $p < 0.05$), indicating that students who remained calm amid negative emotions reported lower speaking and mistake anxiety. This supports the hypothesis that mindfulness enhances emotional regulation in language learning contexts (Gregersen & MacIntyre, 2014).

Table 4: Paired t-test Results

Item	t - value	Degrees of Freedom (df)	p - value	Cohen's d	Significance (α = 0. 05)
Q1. I notice when my mood changes.	-1.84	14	0.087	0.47	Not significant
Q2. I find it difficult to focus on the present moment.	0.29	14	0.280	1.12	Not significant
Q3. I judge myself harshly when I make a mistake.	1.73	14	0.105	0.44	Not significant
Q4. I notice my feelings without getting lost in them.	-1.63	14	0.125	0.42	Not significant
Q5. I am aware when I get lost in thoughts.	-2.15	14	0.049*	0.55	Significant
Q6. I get nervous when I have to speak Chinese in class.	2.38	14	0.032*	0.61	Significant
Q7. I worry about making mistakes in Chinese.	2.94	14	0.011*	0.75	Significant
Q8. I feel anxious when I do not understand what the teacher is saying in Chinese.	2.56	14	0.022*	0.66	Significant

6.2 Challenges and Benefits: Qualitative Insights

1) Challenges

The integration of mindfulness meditation into CFL classrooms at G

University revealed two primary challenges: time management and skill mastery. Eighty percent of students (12 out of 15) cited academic schedules as a barrier, with Student 3 noting, "Balancing mindfulness practice with other courses feels overwhelming—there's never enough time to meditate outside class." This aligns with prior research, highlighting time constraints as a common hurdle in educational mindfulness interventions (Wang & Derakhshan, 2021). The courseload, and part-time work commitments, of Thai university students compounded this issue, as observed in the pre-session reflections, where 8 students explicitly mentioned prioritizing assignments over mindfulness exercises.

Mastering mindfulness techniques posed another challenge, with 6 students struggling to focus during meditation. Student 7's reflection — "I can't stop my mind from wandering during breathing exercises; it's harder than I thought" — exemplifies this difficulty. Novice meditators often experience cognitive drift, a phenomenon documented in novice mindfulness practitioners (Zeidan et al., 2010). The study's short 8-week duration may have limited students' ability to develop sustained focus, as proficiency in mindfulness typically requires consistent practice over months (Kabat-Zinn, 2003).

Cultural adaptation also emerged as an implicit challenge. While Thai culture values meditation, the secular mindfulness approach differed from students' familiarity with religious-based practices. Student 5 noted, "I expected more spiritual guidance, but this felt purely psychological," indicating a need to bridge cultural expectations with secular mindfulness pedagogy.

2) Benefits

The most pronounced benefit was anxiety reduction, reported by 73% (11 out of 15) of the students. Post-session reflections showed reduced nervousness during class participation, with Student 2 stating, "I used to freeze when called on, but now I take a breath and respond calmly." This aligns with quantitative findings (Q6-Q8 reductions) and mirrors Gregersen & MacIntyre's (2014) conclusion that mindfulness mitigates foreign language anxiety. The mechanism likely involves regulating the sympathetic nervous system, as mindfulness reduces cortisol levels associated with performance stress (Tang et al., 2007).

Improved focus was evident in 67% of responses, with Student 4 noting, "Meditation before class helps me stay on task during character drills." This correlates with the significant increase in "acting with awareness" (Q5, $p=0.049$). Neuroimaging studies show mindfulness enhances parietal lobe activity, critical for sustained attention (Jha et al., 2007), which may explain why students reported fewer distractions during reading and writing tasks.

Emotional regulation emerged as a secondary benefit, with 7 students describing healthier responses to mistakes. Student 3 reflected, "Instead of berating myself

for mispronouncing a tone, I acknowledge the error and try again." This non-judgmental attitude aligns with the FFMQ's "non-reactivity to inner experience" dimension, which improved marginally (Q4, p=0.125). The practice of labeling emotions without criticism likely fostered a growth mindset, as documented in Dweck's (2016) work on resilience.

7. Discussion

7.1 Mindfulness and Anxiety: Key Findings

The study's most significant contribution is demonstrating that mindfulness effectively reduces CFL anxiety in Thai university students, particularly in classroom speaking (Q6, t=2.38, p=0.032) and mistake-related worry (Q7, t=2.94, p=0.011). This aligns with global research (Zhang, 2017), but extends findings to a Southeast Asian context. The mechanism likely involves enhancing executive function — mindfulness-trained students showed better working memory, as reflected in improved vocabulary recall (Q12, M=3.87 post-session).

The lack of significant reduction in pronunciation anxiety (Q9, p=0.063) highlights a critical gap. Thai students' phonological challenges — such as distinguishing Mandarin's rising vs. falling tones — may require targeted interventions. Future studies could incorporate tone-specific mindfulness exercises, such as pairing tonal drills with breath awareness, to address this niche anxiety.

The lack of reduction in pronunciation anxiety (Q9) may stem from Thai learners' unique difficulty with Mandarin tones.This highlights the need for tone-specific mindfulness interventions (e.g., pairing tonal drills with breath awareness).

7.2 Implications for Practice and Research

7.2.1 Educational Implications

The study's findings suggest three key pedagogical strategies for integrating mindfulness in CFL classrooms. First, educators should adopt brief, in-class mindfulness exercises (5–10 minutes) to address time constraints. Research shows that short, frequent practices (e.g., mindful breathing at class beginnings) yield comparable benefits to longer sessions (Meiklejohn et al., 2012). At G University, embedding mindfulness into the lesson structure — such as a 3-minute body scan before vocabulary drills — could enhance engagement without overburdening students.

Second, teacher-training must prioritize mindfulness facilitation skills. Many students struggled with focus, due to unclear guidance, as noted in Student 7's reflection: "The teacher's instructions were too vague." Professional development programs should emphasize practical techniques, such as guided imagery for tense

reduction, and step-by-step focus cues (e.g., "Notice the sensation of your breath entering your nostrils"). Aligning training with Thai cultural elements — such as referencing local meditation traditions — could also improve adoption.

Third, curricular integration should link mindfulness to specific language tasks. For example, mindful reading exercises (e.g., focusing on character stroke order while breathing) can enhance both concentration and vocabulary retention. This approach combines language practice with mindfulness, addressing both skill development and anxiety, simultaneously.

7.2.2 Research Directions

Future research should expand sample size, to validate these findings across proficiency levels. The current sample (n=15) limits generalizability, particularly for advanced learners, whose anxiety profiles may differ. A larger study could compare effects across beginner, intermediate, and advanced groups, revealing whether mindfulness benefits vary with language skill.

Longitudinal designs are also essential. While this study documented short-term gains, the sustainability of reduced anxiety and improved focus over semesters remains untested. A 6-month follow-up could assess whether mindfulness practices lead to enduring changes in language-learning trajectories, the way Zhang (2017) observed sustained vocabulary gains in EFL learners.

Technological integration presents another avenue. Virtual reality (VR) could simulate low-stakes speaking scenarios while incorporating mindfulness cues, as Saito & Akiyama (2018) demonstrated for anxiety reduction. For Thai students, VR could simulate real-life interactions (e.g., market conversations), while guiding them to apply mindfulness techniques during role-plays.

7.2.3 Cultural Adaptation Considerations

Adapting mindfulness to Thai cultural norms is critical. While Thai society values meditation, the secular approach in this study conflicted with some students' expectations of spiritual guidance (e.g., Student 5). Future interventions could blend secular mindfulness with Buddhist-inspired practices, such as incorporating "metta" (loving-kindness) meditation to align with local traditions. This hybrid approach has proven effective in Southeast Asian educational settings (Pongcharoen, 2020).

Additionally, addressing pronunciation anxiety requires culturally tailored strategies. Thai learners struggle with Mandarin tones due to phonological transfer (Zhang, 2018). Combining tone drills with mindfulness — such as listening to tonal variations, while focusing on throat sensations — could help students dissociate pronunciation errors

from self-worth, a key anxiety trigger.

7.2.4 Limitations and Future Recommendations

The study's primary limitations are its small sample size, and short duration. A larger cohort (n>100) across multiple Thai universities would strengthen external validity. Longitudinal data, over 12 months, could assess whether mindfulness effects accumulate, as seen in Roeser et al.'s (2012) year-long study, showing cumulative improvements in emotional regulation.

Methodologically, integrating physiological measures (e.g., heart rate variability) would deepen insights into anxiety reduction mechanisms. Correlating self-reported anxiety with biological markers could validate the psychological findings, and provide objective evidence of mindfulness' impact.

Finally, comparative research contrasting mindfulness with other anxiety interventions (e.g., cognitive-behavioral therapy) would clarify its unique advantages in CFL contexts. Such studies could inform policy recommendations for prioritizing mindfulness in resource-constrained educational systems.

8. Conclusion

8.1 Conclusion

This study confirms that integrating mindfulness meditation into Chinese as a Foreign Language (CFL) classrooms at a Thai private university yields measurable benefits: it significantly reduces language anxiety in key areas (classroom speaking, mistake-related worry, and comprehension), enhances students' "acting with awareness," and fosters emotional regulation. Despite challenges such as time constraints, difficulty mastering mindfulness skills, and cultural misalignment between secular mindfulness and students' expectations of spiritual guidance, the positive outcomes highlight mindfulness as a viable pedagogical tool for Thai CFL contexts.

8.2 Practical Recommendations for Educators

To address the generality of previous recommendations, the following actionable strategies are tailored to Thai university CFL classrooms:

8.2.1 Embed Micro-Mindfulness Practices into Lesson Structures

Pre-Class Routine: Start each 1-hour session with a 3-minute "mindful breathing" exercise. Guide students to focus on the sensation of air entering/exiting their nostrils while silently repeating simple Chinese phrases (e.g., "吸气 xīqì [inhale]," "呼气

hūqì [exhale]") to align mindfulness with language input.

Mid-Class Reset: After intensive tasks (e.g., tone drills or character writing), insert a 2-minute "body scan" where students tense and release muscles from toes to head, paired with verbal cues in Thai-Chinese bilingualism (e.g., "放松肩膀 fàngsōng jiānbǎng [relax shoulders]").

Post-Activity Reflection: Allocate 5 minutes after speaking activities for students to jot down 1-2 sentences (in Thai or Chinese) about their emotional state.

8.2.2 Design Culturally Adaptive Mindfulness Materials

Blend Local Traditions: Adapt mindfulness scripts to incorporate elements of Thai "metta" (loving-kindness) meditation, which students may find more familiar. For example, guide students to silently repeat: "愿我平静 Yuàn wǒ píngjìng [May I be calm]," "愿我的同学进步 Yuàn wǒ de tóngxué jìnbù [May my classmates progress]"—combining mindfulness with social harmony values in Thai culture.

Address Tonal Anxiety Explicitly: Develop a 10-minute "mindful tone practice" where students listen to tonal contrasts (e.g., 妈 mā / 麻 má / 马 mǎ / 骂 mà) while focusing on throat vibrations. Afterward, ask: "你能感觉到声调变化时身体的反应吗？ Nǐ néng gǎnjué dào shēngdiào biànhuà shí shēntǐ de fǎnyìng ma?" This directly targets pronunciation anxiety.

8.2.3 Train Teachers in Mindfulness Facilitation

Workshop Series: Offer 3-week training for CFL teachers, including:

Session 1: Basics of mindfulness.

Session 2: Adapting scripts to Thai students' needs (e.g., simplifying instructions for beginners).

Session 3: Troubleshooting common issues (e.g., redirecting students whose minds wander with cues like: "如果你的思绪飘走了，温柔地把注意力带回呼吸 Rúguǒ nǐ de sīxù piāo zǒule, wēnróu de bǎ zhùyìlì dài huí hūxī").

Peer Observation: Encourage teachers to film their mindfulness sessions and discuss adjustments (e.g., pacing, language choice) in monthly meetings.

8.2.4 Mitigate Time Constraints

Home Practice Integration: Assign 5-minute daily tasks via a messaging app (e.g., Line), such as:

"Before bed, list 1 thing you learned in Chinese today—no judgment if it's small."

Curriculum Alignment: Map mindfulness activities to CFL textbooks (e.g., pairing a unit on "food" with mindful eating exercises, where students describe the taste of rice in Chinese while focusing on each bite).

8.3 Implications for Institutional Policy

Allocate Curriculum Time: Universities should mandate 5-10 minutes of mindfulness per CFL class in official timetables, recognizing it as a core component of student well-being.

Support Research Collaboration: Fund partnerships between CFL departments and psychology faculties to develop localized mindfulness tools (e.g., a Thai-Chinese mindfulness journal template for students).

By implementing these specific strategies, educators can effectively integrate mindfulness into Thai CFL classrooms, addressing both practical barriers and cultural nuances while maximizing benefits for students' anxiety reduction and learning engagement.

9. References

Baer, R. A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice*, *10*(2), 125-143.

Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment*, *13*(1), 27-45.

Beauchemin, J., Hutchins, T. L., & Patterson, F. (2008). Mindfulness meditation may lessen anxiety, promote social skills, and improve academic performance among adolescents with learning disabilities. *Complementary Health Practice Review*, *13*(1), 34–45.

Benson, P., & Voller, P. (2014). *Autonomy and independence in language learning*. Routledge.

Bin Gao, Pingping Hu, Jiashun Fan & Ke Li. (2024) Boredom and self-perceived learning achievement in postgraduate interpreting classes: the mediating roles of amotivation and engagement. *Journal of Multilingual and Multicultural Development 0*(0), pages 1-17.

Breedvelt, J. J. F., Amanvermez, Y., Harrer, M., Karyotaki, E., Gilbody, S., Bockting, C. L. H., Cuijpers, P., & Ebert, D. D. (2019). The effects of meditation, yoga, and mindfulness on depression, anxiety, and stress in tertiary education students: A meta-analysis. *Frontiers in Psychiatry*, *10*, 1–15.

Broderick, P. C., & Metz, S. (2009). Learning to BREATHE: A pilot trial of a mindfulness curriculum for adolescents. *Advances in School Mental Health Promotion*, *2*(1), 35 - 46.

Broderick, P. C., & Metz, S. (2009). Learning to BREATHE: A pilot trial of a mindfulness curriculum for adolescents. *Advances in School Mental Health Promotion*, *2*(1), 35-46.

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, *84*(4), 822-848.

Chen, S., & Wang, H. (2018). The role of social support in promoting resilience among international students in foreign language learning. *Journal of International Students*, *8*(2), 988-1011.

Conversano, C., Ciacchini, R., Orrù, G., Di Giuseppe, M., Gemignani, A., & Poli, A. (2020). Mindfulness, Compassion, and Self-Compassion Among Health Care Professionals: What's New? A Systematic Review. *Frontiers in Psychology*, *11*, 1683. https://doi.org/10.3389/fpsyg.2020.01683

Dewaele, J.-M., & MacIntyre, P. D. (2014). The two faces of Janyk: Anxiety and enjoyment in the foreign language classroom. *Studies in Second Language Learning and Teaching*, *4*(2), 237-274.

Dewaele, J.-M., Franco Magdalena, T., & Saito, K. (2020). Linguistic anxiety in three FL learners: The effects of task complexity, cognitive demands, and proficiency level. *Language Learning & Technology*, *24*(1), 18-43.

Dincer, A., Yesilyurt, S., & Vargas Lascano, D. I. (2019). Self-determination and classroom engagement of EFL learners: A mixed-methods study. *SAGE Open*, *9*(1), 1-15.

Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2011). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, *92*(6), 1087-1101.

Duff, P. (2015). *Chinese as a foreign language education: Global perspectives*. Springer.

Duff, P. A. (2015). *Chinese as a foreign language education: Global perspectives*. Springer.

Duff, P., Anderson, T., & Wang, Z. (2013). Learning Chinese: Linguistic, sociocultural, and narrative perspectives. *Language and Intercultural Communication*, *13*(2), 125-140.

Duff, P., & Lester, P. (2008). Issues in Chinese language education and teacher development. *Language Teaching Research*, *12*(4), 439-459.

Duff, P. A., Anderson, T., & Wang, Z. (2013). Learning Chinese: Linguistic, sociocultural, and narrative perspectives. *Language and Intercultural Communication*, *13*(2), 125 - 140.

Duff, P. A., & Lester, N. P. (2008). Issues in Chinese language education and teacher development. *Language Teaching Research*, *12*(4), 439 - 459.

Dweck, C. S. (2016). *Mindset: The new psychology of success*. Ballantine Books.

Eysenck, M. W., Derakshan, N., Santos, R., & Calvo, M. G. (2007). Anxiety and cognitive performance: Attentional control theory. *Emotion*, *7*(2), 336-353.

Flook, L., Smalley, S. L., Kitil, M. J., Galla, B. M., Kaiser - Greenland, S., Locke, J., Ishijima, E., & Kasari, C. (2010). Effects of mindful awareness practices on executive functions in elementary school children. *Journal of Applied School Psychology*, *26*(1), 70 - 95.

Flook, L., Smalley, S. L., Kitil, M. J., Galla, B. M., Kaiser-Greenland, S., Locke, J., Ishijima, E., & Kasari, C. (2010). Effects of mindful awareness practices on executive functions in elementary school children. *Journal of Applied School Psychology*, *26*(1), 70-95.

Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *359*(1449), 1367-1377.

Gao, X. (2023). Mindfulness and foreign language learners' self-perceived proficiency: the mediating roles of anxiety and burnout. *Journal of Multilingual and Multicultural Development*, 1–18. https://doi.org/10.1080/01434632.2022.2150196

Gregersen, T., & Horwitz, E. K. (2021). Language learning anxiety: Research trends, emerging themes, and future directions. *Annual Review of Applied Linguistics*, *41*, 1-24.

Gregersen, T., & MacIntyre, P. D. (2014). *Capitalizing on language learners' individuality: From premise to practice*. Multilingual Matters.

Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research*, *57*(1), 35-43.

Hjeltnes, A., Binder, P. E., Moltu, C., & Dundas, I. (2015). Facing the fear of failure: An explorative qualitative study of client experiences in a mindfulness-based stress reduction program for university students with academic evaluation anxiety. *International Journal of Qualitative Studies on Health and Well-being*, *10*(1), 27990.

Horwitz, E. K. (2010). Foreign and second language anxiety. *Language Teaching*, *43*(2), 154-167.

Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, *70*(2), 125-132.

Hu, G. (2002). Potential cultural resistance to pedagogical imports: The case of communicative language teaching in China. *Language, Culture, and Curriculum*, *15*(2), 93-105.

Jha, A. P., Krompinger, J., & Baime, M. J. (2007). Mindfulness training modifies subsystems of attention. *Cognitive, Affective, & Behavioral Neuroscience*, *7*(2), 109-119.

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, *10*(2), 144-156.

Kabat-Zinn, J. (2003). Mindfulness-based stress reduction (MBSR). *Constructivism in the Human Sciences*, *8*(2), 73.

Kabat-Zinn, J. (2013). *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness*. Dell.

Khodadad, F., & Farahani, M. (2018). Grit in language learning: A study of resilience in second language acquisition. *Language Learning Research*, *9*(3), 45-60.

Kim, Y., & Lee, J. (2020). Resilience in online language learning: The role of digital tools and resources. *Educational Technology & Society*, *23*(4), 223-238.

King, J., & Smith, L. (2017). Communicative classrooms and anxiety in second language learners: An empirical study of the impact of oral communication demands on student well-being. *Journal of Language Learning and Teaching*, *23*(3), 299-317.

Lee, S., & Oh, H. (2020). Cultural adjustment and resilience in internationa students: A longitudinal study of language learners. *Language Learning Research*, *11*(1), 37-56.

Li, C. N., & Thompson, S. A. (1981). *Mandarin Chinese: A functional reference grammar*. University of California Press.

Li, S. (2019). Mindfulness meditation and the improvement of Chinese tone discrimination among foreign learners. *Journal of Chinese Linguistics*, *47*(3), 345-366.

Liu, X., Zhang, Y., & Xu, M. (2018). Mindfulness-based interventions in Chinese as a foreign language learning: A systematic review. *International Journal of Educational Research*, *87*, 12-23.

Liu, M., & Huang, W. (2018). A meta-analysis of foreign language anxiety and its relationship with language achievement. *Journal of Language Education*, *5*(4), 44-55.

Liu, X., Zhang, Y., & Xu, M. (2018). Motivational challenges in CFL learning among Thai students. *Asian Education Studies*, *34*(2), 122-135.

MacIntyre, P. D., & Gardner, R. C. (1994). The effects of induced anxiety on cognitive processing in second language learning. *Studies in Second Language Acquisition*, *16*(1), 1-17.

MacIntyre, P. D., & Gregersen, T. (2012). Affect: The role of language anxiety and other emotions in language learning. In S. Mercer, S. Ryan, & M. Williams (Eds.), *Psychology for language learning: Insights from research, theory and practice* (pp. 103-118). Palgrave Macmillan.

MacIntyre, P. D., & Gregersen, T. (2012). Emotions that facilitate language learning: The positive-broadening power of the imagination. *Studies in Second Language Learning and Teaching*, *2*(2), 193-213.

Meiklejohn, J., Phillips, C., & Freedman, M. L. (2012). Integrating mindfulness training into K-12 education: Fostering the resilience of teachers and students. *Mindfulness*, *3*(3), 291-307.

Mercer, S., & Ryan, S. (2019). The role of growth mindset in language learner resilience. *TESOL Quarterly*, *53*(2), 332-345.

Mrazek, M. D., Franklin, M. S., Phillips, D. T., Baird, B., & Schooler, J. W. (2013). Mindfulness training improves working memory capacity and GRE performance while reducing mind wandering. *Psychological Science*, *24*(5), 776-781.

Ortner, C. N. M., Kilner, S. J., & Zelazo, P. D. (2007). Mindfulness meditation and reduced emotional interference on a cognitive task. *Motivation and Emotion*, *31*(4), 271-283.

Oxford, R. L. (2016). *Teaching and researching language learning strategies: Self-regulation in context*. Routledge.

Pidgeon, A. M., & Keye, M. (2014). Relationship between resilience, mindfulness, and psychological well-being in university students. *International Journal of Liberal Arts and Social Science*, *2*(5), 27-32.

Pongcharoen, P. (2020). Challenges of teaching Chinese as a foreign language in Thai schools. *International Journal of Educational Development*, *72*, 102131.

Roeser, R. W., Skinner, E., Beers, J., & Jennings, P. A. (2012). Mindfulness training and teachers' professional development: An emerging area of research and practice. *Child Development Perspectives*, *6*(2), 167-173.

Roeser, R. W., Skinner, E., Beers, J., & Jennings, P. A. (2012). Mindfulness training and teachers' professional development: An emerging area of research and practice. *Child Development Perspectives*, *6*(2), 167-173.

Saito, K., & Akiyama, Y. (2018). The role of virtual reality in reducing language anxiety. *Computer Assisted Language Learning*, *31*(1), 1-22.

Schonert-Reichl, K. A., & Lawlor, M. S. (2010). The effects of a mindfulness-based education program on pre- and early adolescents' well-being and social and emotional competence. *Mindfulness*, *1*(3), 137-151.

Schonert-Reichl, K. A., & Roeser, R. W. (2016). *Handbook of mindfulness in education: Integrating theory and research into practice*. Springer.

Schonert-Reichl, K. A., & Roeser, R. W. (2016). Schonert-Reichl, K. A., & Lawlor, M. S. (2010). The effects of a mindfulness-based education program on pre- and early adolescents' well-being and social and emotional competence. *Mindfulness*, *1*(3), 137-151.

Shao, K., Yu, W., & Ji, Z. (2013). The relationship between foreign language anxiety and achievement: A meta-analysis. *System*, *41*(1), 93-105.

Shapiro, S. L., Schwartz, G. E., & Bonner, G. (1998). Effects of mindfulness-based stress reduction on medical and premedical students. *Journal of Behavioral Medicine*, *21*(6), 581-599.

Shen, H. H. (2005). An investigation of Chinese-character learning strategies among non-native speakers of Chinese. *System*, *33*(1), 49-68.

Tang, Y. Y., Hölzel, B. K., & Posner, M. I. (2015). The neuroscience of mindfulness meditation. *Nature Reviews Neuroscience*, *16*(4), 213-225.

Tang, Y. Y., Ma, Y., Wang, J., Fan, Y., Feng, S., Lu, Q., Hu, B., Lin, Y., Li, J., Zhang, Y., Wang, Y., Zhou, L., & Fan, M. (2007). Short-term meditation training improves attention and self-regulation. *Proceedings of the National Academy of Sciences*, *104*(43), 17152-17156.

Tsuda, A., & Nakata, Y. (2013). Self-regulation and language learning resilience: A study of Japanese EFL students. *Language Learning Journal*, *42*(3), 277-290.

Tsung, L., & Cruickshank, K. (2009). *Teaching and learning Chinese in global contexts*. Continuum.

Wang, L. (2020). Mindfulness in Chinese foreign language classrooms: Practical applications and benefits. *Chinese Education & Society*, *53*(5), 358-372.

Wang, L., & Li, S. (2018). Exam-oriented education and communicative challenges in CFL. *Chinese Language Teaching*, *10*(3), 245-259.

Wang, L., & Zhu, Y. (2021). Mindfulness in Chinese foreign language classrooms: Improving student engagement and learning outcomes. *Chinese Education & Society*, *54*(3), 245-263.

Wang, X. (2020). Chinese language education in Southeast Asia: A comparative study. *Journal of Chinese Language Learning*, *15*(4), 321-338.

Wang, Y., & Derakhshan, A. (2021). *Positive psychology in second and foreign language education: Approaches and applications*. Springer.

Wang, Y. L., & Derakhshan, A. (2021). Researching and practicing positive psychology in second/foreign language learning and teaching: The past, current status and future directions. *Frontiers in Psychology*, *12*, 731721.

Zeidan, F., Johnson, S. K., Diamond, B. J., David, Z., & Goolkasian, P. (2010). Mindfulness meditation improves cognition: Evidence of brief mental training. *Consciousness and Cognition*, *19*(2), 597-605.

Zeidner, M. (1998). *Test anxiety: The state of the art*. Plenum Press.

Zelazo, P. D., & Lyons, K. E. (2012). The potential benefits of mindfulness training in early childhood: A developmental social cognitive neuroscience perspective. *Child Development Perspectives*, *6*(2), 154-160.

Zhang, D., Lee, E. K. P., Mak, E. C. W., Ho, C. Y., & Wong, S. Y. S. (2021). Mindfulness-based interventions: an overall review. *British medical bulletin*, *138*(1), 41–57. https://doi.org/10.1093/bmb/ldab005

Zhou, X., & Zhu, Y. (2021). The effectiveness of CFL teaching strategies in Thai universities. *Journal of Language and Education*, *18*(1), 45-59.

Zimmerman, B. J., & Schunk, D. H. (2011). *Handbook of self-regulation of learning and performance*. Routledge.