

FOREIGN LANGUAGE SPEAKING MINDSET OF THAI
UNDERGRADUATE STUDENTS



A Thesis Submitted in Partial Fulfillment of the Requirements for the
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กรอบความคิดการพูดภาษาต่างประเทศของนักศึกษาไทย
ในระดับปริญญาตรี



นางสาวนพวรรณ สุขกลาง

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาปรัชญาดุษฎีบัณฑิต
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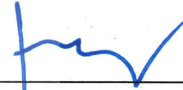
FOREIGN LANGUAGE SPEAKING MINDSET OF THAI UNDERGRADUATE STUDENTS

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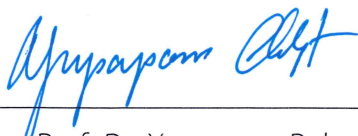
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การพัฒนาทักษะการพูดถือเป็นความท้าทายสำหรับนักศึกษาไทยในระดับปริญญาตรี เนื่องจากการพูดต้องใช้การประมวลผลทางภาษาและการโต้ตอบแบบทันทีทันใด งานวิจัยที่ผ่านมาแสดงถึงอิทธิพลของกรอบความคิดการพูดภาษาต่างประเทศต่อความสามารถในการพูดของนักศึกษาเพื่อรับมือกับความท้าทายเหล่านี้ การวิจัยนี้มีจุดประสงค์เพื่อ (1) ศึกษากรอบความคิดการเรียนรู้ภาษาและกรอบความคิดการพูดภาษาต่างประเทศของนักศึกษาไทย (2) วิเคราะห์ปัจจัยที่สัมพันธ์กับกรอบความคิดการพูดภาษาต่างประเทศ (3) หาความสัมพันธ์ระหว่างกรอบความคิดการเรียนรู้ภาษา กรอบความคิดการพูดภาษาต่างประเทศ และผลสัมฤทธิ์ด้านการพูด และ (4) สำรวจลักษณะความเป็นพลวัตของกรอบความคิดการพูดเมื่อเวลาเปลี่ยนไป การวิจัยนี้ใช้ระเบียบวิธีวิจัยแบบผสมผสาน (Mixed-Methods Research) ประกอบด้วยแบบสอบถามกรอบความคิดการเรียนรู้ภาษา แบบสอบถามกรอบความคิดการพูดภาษาต่างประเทศ กิจกรรมการเสริมสร้างกรอบความคิดการเรียนรู้ภาษา วิธีวิทยาคิว (Q-methodology) และการสัมภาษณ์แบบกึ่งโครงสร้าง

ผลการศึกษาพบว่า นักศึกษาไทยระดับปริญญาตรีมีกรอบความคิดการเรียนรู้ภาษาแบบเติบโตในระดับปานกลาง และมีกรอบความคิดการพูดภาษาต่างประเทศแบบเติบโตในระดับต่ำ การวิเคราะห์องค์ประกอบเชิงสำรวจ (Exploratory Factor Analysis) ระบุปัจจัยสำคัญสามประการที่มีอิทธิพลต่อกรอบความคิดการพูดได้แก่ (1) ผลลัพธ์ทางอารมณ์จากการอนุมานสาเหตุ (2) เป้าหมายที่มุ่งเน้นกระบวนการเชิงแรงจูงใจ และ (3) การตอบสนองเชิงรุกต่อความล้มเหลว การวิเคราะห์ความสัมพันธ์พบว่า กรอบความคิดการเรียนรู้ภาษา มีความสัมพันธ์เชิงบวกในระดับปานกลางกับกรอบความคิดการพูดภาษาต่างประเทศ อย่างไรก็ตาม ความสัมพันธ์ระหว่างกรอบความคิดทั้งสองกับผลสัมฤทธิ์การพูดอยู่ในระดับต่ำ หลังการดำเนินกิจกรรมเสริมสร้างกรอบความคิดพบว่า คะแนนกรอบความคิดการพูดภาษาต่างประเทศพัฒนาขึ้นเล็กน้อย และผลสัมฤทธิ์ด้านการพูดเพิ่มขึ้นอย่างมีนัยสำคัญทางสถิติ สะท้อนให้เห็นว่า การเสริมสร้างกรอบความคิดอย่างเหมาะสมส่งผลต่อการพัฒนาทักษะการพูด

การศึกษานี้ขยายขอบเขตทฤษฎีกรอบความคิด (Mindset Theory) โดยนำเสนอบทบาทของการกำกับอารมณ์ (Emotional Regulation) ในฐานะตัวกลางระหว่างกรอบความคิดและผลลัพธ์ด้านทักษะ การศึกษานี้เสนอเครื่องมือประเมินกรอบความคิด ได้แก่ แบบสอบถามกรอบความคิด

การพูดภาษาต่างประเทศ (Foreign Language Speaking Mindset Inventory: FLSMI) สำหรับ
การประเมินกรอบความคิดด้านการพูด ผลการวิจัยในบริบทนี้ ชี้ให้เห็นความสำคัญของการออกแบบ
กิจกรรมเสริมสร้างกรอบความคิดที่สอดคล้องกับวัฒนธรรม โดยเฉพาะการมุ่งเน้นความสำเร็จระยะ
สั้นและการจัดการความเปราะบางทางอารมณ์ในสภาพแวดล้อมการเรียนการสอนที่มีภาษาอังกฤษ
เป็นภาษาต่างประเทศ (EFL) มีการอภิปรายถึงผลกระทบในเชิงทฤษฎี แนวทางการนำไปใช้ในทาง
ปฏิบัติ และข้อเสนอแนะสำหรับการวิจัยในอนาคต



สาขาวิชาภาษาต่างประเทศ
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NOBPHAWAN SUKKLANG: FOREIGN LANGUAGE SPEAKING MINDSET OF THAI UNDERGRADUATE STUDENTS. THESIS ADVISOR: ASST. PROF. JEFFREY WILANG, Ph.D., 210 PP.

Keyword: Mindset/ Language mindset/ Foreign language speaking mindset/ EFL context/ Language mindset intervention

Developing speaking skills poses challenges for Thai undergraduate students, as speaking requires real-time language processing and interaction. Foreign language speaking mindset has been shown to influence students' speaking abilities. To address these challenges, this study aimed to investigate Thai undergraduate students' language mindset and foreign language speaking mindset, to identify factors associated with foreign language speaking mindset, to determine the relationships between language mindset, foreign language speaking mindset, and speaking performance, and to explore the dynamic nature of speaking mindset over time. A mixed-methods design was employed, incorporating language mindset inventory, foreign language speaking mindset inventory, a language mindset intervention, Q-methodology, and semi-structured interviews.

The findings revealed that Thai undergraduate students generally endorsed a moderate growth language mindset and a weaker growth-oriented foreign language speaking mindset. Factor analysis identified three key factors influencing speaking mindset: emotional outcomes of attribution, motivational process-oriented goals, and proactive responses to failure. A moderate positive relationship was found between language mindset and foreign language speaking mindset; however, the relationship between mindsets and actual speaking performance was weak. Post-intervention results indicated modest improvements in foreign language speaking mindset score and significant change in speaking performance, suggesting that targeted mindset support can contribute to skill development.

The study extends existing mindset theory by suggesting the role of emotional regulation as a mediator between beliefs and performance outcomes. Methodologically, it introduces the Foreign Language Speaking Mindset Inventory (FLSMI) as a new tool for assessing domain-specific speaking mindset. Contextually, the findings highlight the importance of culturally responsive interventions that address short-term achievement focus and emotional vulnerability in EFL learning

environments. Implications for theory, instructional practice, and future research are discussed.



School of Foreign Languages
Academic Year 2024

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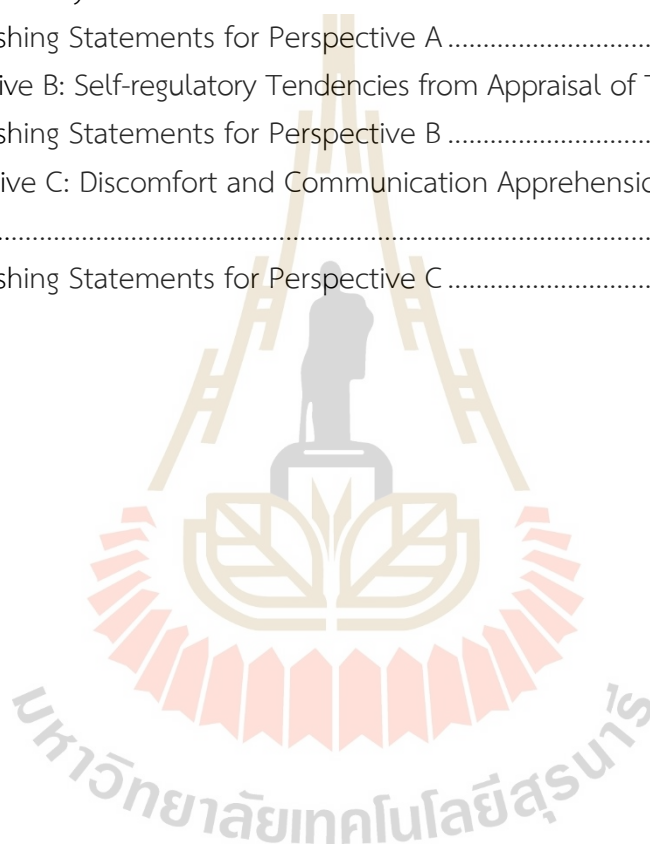
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LIST OF ABBREVIATIONS

EFA	Exploratory Factor Analysis
EFL	English as a Foreign Language
FLSMI	Foreign Language Speaking Mindset Inventory
LMI	Language Mindset Inventory
LMMS	Language Mindset Meaning-Making System



CHAPTER 1

INTRODUCTION

1.1 Rationale and Background of the Study

The ability to speak English effectively plays an essential role in both educational and professional development. English communication skills are increasingly demanded in the workplace, where employees are expected to interact confidently in multicultural environments (Kaewkunha & Sukying, 2021). Following Thailand's integration into the ASEAN community, English literacy and communication have become core objectives of national language education policies (Choomthong, 2014). In academic contexts, English speaking competence enables students to express opinions, build peer relationships, and participate in class discussions, which fosters collaboration and shared learning experiences (Tantiwich & Sinwongsuwat, 2024; Shimray, 2023). However, speaking remains one of the most challenging skills for Thai EFL learners, who are required to produce language in real-time with limited lexical and grammatical knowledge (Chand, 2021; Kalra & Siribud, 2020; Sha'ar & Boonsuk, 2021; Aizawa et al., 2023; Chema et al., 2023).

Understanding the development of foreign language speaking skills in Thailand requires attention to the educational structure and systemic constraints learners face. Although English is a compulsory subject in the national curriculum from primary through upper secondary levels (Saengboon, 2017), many Thai students graduate without achieving communicative fluency. According to Education First (2024), Thailand ranks very low in global English proficiency, with learners typically demonstrating only basic communication skills comparable to the CEFR A1 level. While national policy encourages the use of Communicative Language Teaching (CLT), many teachers continue to rely on grammar-translation approaches that prioritize form over fluency (Pechapan-Hammond, 2020; Pitikornpuangpetch & Suwanarak, 2021). Lecture-based teaching methods leave students with limited speaking practice, which contributes to a persistent gap between language instruction and oral communication ability. Furthermore, these methods often shape students' beliefs that success in English depends on mastering grammar rules and vocabulary, rather than on developing confidence and communicative competence.

The limited use of English in daily life further exacerbates speaking challenges among Thai learners. As English functions primarily as a foreign language in Thailand,

most students have few opportunities to engage in real-world speaking interactions beyond the classroom (Baker, 2008; Wang & Rajprasit, 2015). As a result, many students express reluctance to speak English, driven by anxiety about making mistakes in pronunciation or grammar (Al-saidat et al., 2023; Bai, 2023; Chantakhat, 2025). These anxieties are particularly pronounced among low-achieving students, who often internalize the belief that they lack the talent required to succeed in speaking tasks. Such beliefs reflect a fixed mindset, in which language ability is seen as an unchangeable trait rather than a skill that can be developed (Yao et al., 2021; Lou et al., 2022; Zarrinabadi et al., 2023). These mindset beliefs may contribute to the persistent challenges students face in developing speaking skills and call for more attention to the psychological aspects of language learning.

Psychological variables, particularly mindset beliefs, have a profound influence on learners' speaking performance. Language learning involves cognitive, emotional, and behavioral dimensions that are shaped by students' attitudes, motivation, and perceived ability (Stevick, 1996; Shumin, 2002; Williams et al., 2015). Past research has highlighted the roles of aptitude, anxiety, and self-belief in language acquisition (Masgoret & Gardner, 2003; Ellis, 2015; Li, 2019; Zhang, 2019). Although research on mindsets has gained recognition, speaking-specific mindset research in the Thai context remains limited. Nevertheless, global studies increasingly point to the potential of growth mindset to enhance learner engagement and academic performance (Lou & Noels, 2019b). A growth mindset encourages students to view challenges as part of learning and supports the development of confidence and resilience. In contrast, a fixed mindset often leads to avoidance behaviors and higher levels of speaking anxiety.

Distinguishing between mindset and other learner belief systems remains a conceptual challenge in the literature. Seminal works by Horwitz (1988) and Mori (1999) have illustrated the complexity of language learning beliefs. Mercer and Ryan (2010) later proposed that mindset exists along a continuum rather than as a fixed dichotomy. This perspective helps explain how students may demonstrate growth-oriented beliefs in some skill areas but hold fixed views in others. For instance, learners with a growth mindset in listening are more likely to engage with vocabulary development and improve comprehension (Meng & Guo, 2018). Similarly, growth mindset beliefs have been linked to enhanced writing performance and self-regulation in English composition (Bai & Guo, 2021). In speaking, students who embrace growth-oriented beliefs tend to display stronger interpersonal communication, greater fluency, and lower anxiety in public settings (Nordin & Broeckelman-Post, 2019).

Mindset research in Thai language education is still emerging, although recent studies have begun exploring its relevance. Several investigations have examined students' general language mindset (Buathong, 2019; Janudom, 2021; Wilang, 2022, 2024), while others have focused on variables such as learning outcomes (Damrongpanit, 2020), goal setting (Swatevacharkul & Boonma, 2021; Yao & Zhu, 2022), happiness (Sudnawa et al., 2019), and resilience (Wannapayun, 2017; Warunwutthi et al., 2022). Recent study has proposed the support guidelines to promote growth mindset (Inyai & Chusanachoti, 2025). Most of these studies have used quantitative methods and have not directly investigated learners' beliefs in the context of speaking. To date, limited research has examined how learners' speaking mindset develops, how it influences performance, or how it might be shaped through intervention.

This study seeks to investigate foreign language speaking mindset from a domain-specific perspective and contribute to theory, methodology, and pedagogy. It aims to expand the understanding of how Thai university students construct beliefs about their speaking ability and how these beliefs are influenced by classroom experiences and broader social contexts. The study also incorporates a mindset intervention using a mixed-methods design that includes surveys, mindset intervention, Q-methodology, and semi-structured interviews. Through this approach, the study explores how students' speaking mindset evolves, what factors shape it, and how growth mindset practices may enhance learners' confidence, persistence, and performance.

Finally, this research addresses a contextual and pedagogical gap by considering the influence of Thai educational culture on student mindset. Cultural values such as effort belief, face, and emphasis on correctness may affect how students internalize feedback and develop beliefs about their capabilities (Limeri et al., 2020). This study contributes to a better understanding of how mindsets are socialized in the Thai context and provides evidence for culturally relevant teaching strategies. By identifying the conditions that foster a growth-oriented speaking mindset, the study offers practical guidance for educators aiming to promote learner autonomy and communicative competence in Thai EFL classrooms.

1.2 Purposes of the Study

The primary objective of this study is to develop a thorough comprehension of the beliefs associated with language mindset and foreign language speaking mindset and conceptualize the foreign language speaking mindset among undergraduate students in Thailand. Furthermore, this research aims to investigate potential

correlations between the language mindsets of these students, their foreign language speaking mindset, and their speaking performance. To better understand the relationship between various learning variables and the foreign language speaking mindset, the study also explores the dynamic nature of the foreign language speaking mindset among undergraduate students. Accordingly, the research purposes of this study can be summarized as follows.

1. To investigate Thai undergraduate students' language mindset and foreign language speaking mindset.
2. To know the factors associated with foreign language speaking mindset of Thai undergraduate students.
3. To determine the relationship between and among language mindset, foreign language speaking mindset, and speaking performance of Thai undergraduate students.
4. To understand the dynamic nature of foreign language speaking mindset of Thai undergraduate students over time.

1.3 Research Questions

In order to fulfill the objectives of the study, the following research questions will be examined.

1. What are the language mindset and foreign language speaking mindset of Thai undergraduate students?
2. What are the factors related to foreign language speaking mindset among Thai undergraduate students?
3. What are the relationships among language mindset, foreign language speaking mindset, and speaking performance of Thai undergraduate students?
4. Does foreign language speaking mindset among Thai undergraduate students change over time, and if so, what is the nature of this change?

By answering these questions, the study seeks to generate a deeper understanding of the mindset systems that influence students' development of speaking ability. It aims to identify the key psychological constructs associated with foreign language speaking mindset, examine how these constructs relate to learners' observable performance, and uncover patterns of change in learners' mindset beliefs. The findings are expected to contribute to theory by refining the concept of domain-specific mindset in language learning, to pedagogy by offering practical insights for designing mindset-supportive instruction tailored to the speaking skill, to context by deepening understanding of mindset development within Thai EFL settings, and to methodology

by demonstrating the value of mixed-methods, Q-methodology, and mindset intervention in capturing dynamic learner beliefs.

1.4 Significance of the Study

The present study focuses on examining the mindset of undergraduate students in relation to their second language (L2) speaking abilities. Its primary objectives are to investigate the students' perceptions and construction of meaning surrounding their language learning capacities, and to explore the cognitive, affective, and behavioral aspects associated with their beliefs. The inclusion of psychological perspectives is crucial for a comprehensive understanding of language learning, as it offers insights into learners' cognitive processes, emotional experiences, and behavioral responses (Williams, Mercer, & Ryan, 2015). This research makes significant contributions in several areas within the existing body of knowledge of mindset studies.

1.4.1 Theoretical Significance of the Study

From a theoretical standpoint, the majority of previous studies have primarily focused on factors such as attitudes, motivation, second language aptitude, and foreign language anxiety in the context of language learning (Ellis, 2015). However, there is a noticeable dearth of research specifically exploring the concept of domain-specific language mindset. This study effectively addresses this gap in the literature by thoroughly examining the domain-specific language mindset, with a particular emphasis on the speaking skill. As a result, this research enhances our understanding of the role of mindset in language learning, shedding light on a crucial yet underexplored dimension of learners' language-related beliefs and attitudes.

1.4.2 Methodological Significance of the Study

In terms of methodological significance, this study endeavors to investigate foreign language speaking mindset through the application of qualitative investigation and mindset intervention, enabling an exploration of the dynamic nature of mindset. By employing a combination of qualitative and experimental methods, this research offers methodological insights that are invaluable in cautionary considerations and recommendations for fostering students' language mindset. The utilization of diverse methodological approaches allows for a more comprehensive understanding of the intricate interplay between language mindset and language learning outcomes, thereby enriching the methodological toolkit available for future research endeavors in this domain. Additionally, the insights gained from this study hold the potential to inform educators and policymakers seeking to design effective language education strategies that cultivate a growth language mindset among students.

1.4.3 Contextual Significance of the Study

The study holds significant contextual implications, particularly within the Asian and Thai educational contexts, where there is a notable scarcity of research on language mindset and domain-specific language mindset. Additionally, the existing studies associated with language mindset and domain-specific speaking mindset have not comprehensively explored the various factors that may be interrelated with language mindset. Thus, the current study seeks to fill this research gap by offering a comprehensive examination of the factors that are closely related to the domain-specific mindset sub-system. By delving into these contextual aspects, this research aims to provide a more nuanced and contextually-relevant understanding of language mindset and its specific manifestations in the domain of speaking.

1.4.4 Pedagogical Significance of the Study

The study bears significant pedagogical implications, providing practical guidelines for cultivating a growth L2-speaking mindset within English as a Foreign Language (EFL) contexts. In light of the inconclusive effects observed in previous mindset interventions targeting participants, this research aims to bridge the gaps in the literature and offer evidence-based strategies for fostering a growth mindset in EFL language learning. Through the identification of effective interventions, this study seeks to empower educators to create a supportive and nurturing learning environment that nurtures learners' language mindset, ultimately enhancing their resilience and promoting success as Thai undergraduate students in their language learning journey. By equipping learners with a positive and adaptive mindset, this research strives to optimize language learning experiences and outcomes, thereby contributing to the enhancement of language education in the EFL context.

1.5 Definition of Terms

Given the specific focus of the present study on the foreign language speaking mindset of undergraduate students within the Thai context, it is important to provide clear definitions of the technical terms that will be used throughout the research.

1.5.1 Language Mindset

Ryan and Mercer (2012b) proposed a definition of the language learning mindset grounded in Dweck's theory of implicit beliefs. To tailor this concept more specifically to the domain of second language acquisition, Lou and Noels (2019a) extended the definition to encompass three key dimensions (as discussed in Chapter 2). Within this framework, a growth language mindset reflects the belief that language

learning abilities can be developed through sustained effort and practice, regardless of one's innate cognitive ability, natural aptitude for language, or age. This perspective emphasizes that language learning potential is not predetermined but can be enhanced through perseverance and effective strategies. In contrast, a fixed language mindset represents the belief that language learning ability is limited by inherent factors, such as limited general language intelligence, constrained language aptitude, and a restricted period during which language learning is deemed achievable. By incorporating these dimensions, the definition of language mindset becomes more specific to the context of language learning, explaining the beliefs individuals hold about the malleability or fixedness of their language learning abilities.

1.5.2 Foreign Language Speaking Mindset

The concept of implicit theories has found extensive application, particularly within the education field. Ryan and Mercer (2012b) provided a comprehensive definition of language learning mindset based on Dweck's theory. According to their proposal, a growth language learning mindset reflects the belief that language learning abilities can be enhanced through hard work, while a fixed language learning mindset characterizes learners who perceive their language learning abilities as unchangeable. Recent research suggests that language mindset is domain-specific (Anderson, 2018; Bai, Wang, & Nie, 2020; Khajavy, Pourtahmasb, & Li, 2021; Yao and Zhu, 2024). This study focuses specifically on the foreign language speaking mindset, which reflects learners' beliefs about their ability to develop speaking skills in a foreign language. To conceptualize this construct, the current study draws on the language mindset meaning-making system framework proposed by Lou and Noels (2019a, as discussed further in Chapter 2). Within this framework, a growth foreign language speaking mindset involves the belief that speaking ability can be improved through effort and persistence. Learners with this mindset tend to attribute their progress to hard work, set mastery-oriented goals, view failure as a learning opportunity, actively seek feedback, and apply effective learning strategies. As a result, they often experience lower anxiety and more positive emotions during speaking activities. Conversely, a fixed foreign language speaking mindset is based on the belief that speaking ability is innate and resistant to change. Learners with this mindset attribute their speaking performance to talent or natural aptitude, underestimate the role of effort, and tend to set performance-oriented goals focused on avoiding failure. They are more likely to avoid challenging speaking tasks, interpret failure as evidence of low ability, and experience heightened anxiety and negative emotions during speaking activities.

1.5.3 Mindset Meaning System

To understand how mindset beliefs function within a broader psychological framework, the concept of the mindset meaning system is introduced. The concept of mindsets as meaning systems was introduced by Dweck and colleagues to explain how beliefs serve as organizing principles that guide thoughts, emotions, and behaviors (Dweck & Yeager, 2019). Rather than viewing mindsets as isolated beliefs, this perspective considers them as part of an interconnected system that integrates cognitive, affective, and motivational components. A mindset meaning system includes an individual's beliefs about ability, their goals, emotional responses, and behavioral tendencies. This systems-based perspective highlights the complexity of mindset as a psychological construct. It emphasizes that mindsets operate within broader frameworks that influence how individuals interpret experiences and guide their responses in specific domains, such as language learning or speaking.

1.5.4 Language Mindset Meaning System

Building on the general meaning system framework, Lou and Noels (2019) introduced the concept of the language mindset meaning system, which applies specifically to language learning. This system illustrates how beliefs about language learning ability interact with effort, attribution, achievement goals, failures and mistakes, self-regulatory tendencies, and competence-based emotional tendencies to shape learners' experiences. Within the language mindset meaning system, two subsystems are identified: the growth-oriented subsystem and the fixed-oriented subsystem. The growth-oriented subsystem reflects the belief that language ability can be developed through sustained effort. Learners aligned with this subsystem tend to set mastery goals, respond positively to challenges, seek feedback, and employ new strategies to overcome language learning obstacles. They also perceive failures as opportunities for growth and tend to experience more positive emotions during the learning process. In contrast, the fixed-oriented subsystem reflects the belief that language ability is innate. Learners who subscribe to this view are more likely to set performance-oriented goals, avoid feedback, and feel helpless when facing challenges. They interpret failure as a sign of low ability and experience more anxiety and negative emotions, which can hinder their language development. In the present study, the language mindset meaning system provides a conceptual foundation for examining Thai undergraduate students' belief about foreign language speaking ability and how it influences their speaking performance.



1.5.5 Emotional Outcomes of Attribution

The term “Emotional Outcomes of Attribution” refers to the first factor extracted from the exploratory factor analysis in the present study. This factor is derived from constructs related to competence-based emotional tendencies and attribution. It reflects the emotional responses that arise from students’ self-attributions regarding their language ability.

1.5.6 Motivational Process-Oriented Goals

The term “Motivational Process-Oriented Goals” refers to the second factor extracted from the exploratory factor analysis in the current study. This factor is composed of constructs including achievement goals, self-regulatory tendencies, effort, and attribution. It represents the types of goals students set based on their beliefs about the role of effort and the causes of their language learning outcomes.

1.5.7 Proactive Responses in Failure Situations

The term “Proactive Responses in Failure Situations” refers to the third factor extracted from the exploratory factor analysis in this study. This factor is based on constructs such as beliefs about failure and mistakes, effort, self-regulatory tendencies, and achievement goals. It describes the strategies students are likely to adopt when responding to setbacks and errors in language learning.

1.5.8 Speaking Performance

In the present study, “speaking performance” refers to the English language output of Thai undergraduate students during a group conversation task. It is operationally defined as students’ performance in a seven-minute group conversation test, consisting of four participants per group, conducted both before and after the language mindset intervention. Speaking performance is assessed using a standardized rubric developed by the School of Foreign Languages at Suranaree University of Technology. The rubric evaluates two key dimensions: fluency and accuracy. It uses a five-level scale ranging from 0 (no attempt) to 20 (quite fluent and accurate), with descriptors reflecting students’ ability to maintain exchanges, control grammatical structures, and use appropriate vocabulary. To ensure scoring reliability, two raters independently evaluated each student’s performance. The scores are analyzed to explore the relationships between mindsets and speaking performance.

1.5.9 Thai Undergraduate Students

The term “Thai undergraduate students” refers to individuals who have completed their schooling within the formal education system in Thailand and subsequently enrolled in a university within the country.

1.6 Scope of the Study

The present study explores the language mindset and foreign language speaking mindset of Thai undergraduate students, along with the associated variables, in order to gain a comprehensive understanding of the foreign language speaking mindset and its dynamic nature. The target population for this investigation comprises undergraduate students enrolled at Suranaree University of Technology. The selection of this university as the research site was based on considerations of participant accessibility, limited financial resources, and time constraints, which necessitated a careful allocation of research resources.

1.7 Expected Benefits

The present study aims to contribute to the following benefits. Firstly, the participants will directly benefit from the mind set intervention by gaining a deeper understanding of the psychological factors that can impact their language learning. The intervention is designed to facilitate participants' awareness of their language learning process and empower them to become more adaptive and resilient learners. Secondly, the research findings will contribute to the existing knowledge base on language mindset, thus providing valuable insights for the advancement of language learning and teaching in the Thai and related contexts.

1.8 Summary of the Chapter

This chapter provides a comprehensive overview of the research study, including its rationale, objectives, research questions, methodology, key definitions, and significance. Additionally, it outlines the structure of the thesis and highlights the content of subsequent chapters. The chapter begins by discussing the rationale behind the study, explaining the justifications for conducting the research. It then proceeds to outline the specific purposes and research questions that will guide the investigation. Furthermore, a brief overview of the research methodology to be employed is provided, encompassing the chosen methods, data collection procedures, and data analysis techniques.

CHAPTER 2

LITERATURE REVIEW

This chapter presents the theoretical framework and a conceptual framework of the current study. It provides a literature of the mindset meaning system, the language mindset meaning system, and identifies gaps in the existing literature pertaining to the study of mindset and language mindset in the subject area. The topics of the literature review were as follows.

The initial section of the literature review focuses on mindset and the meaning system. It elucidates the concept of mindset and presents the framework employed for operationalizing the meaning system. Furthermore, it delineates the defining characteristics of mindset constructs while highlighting the existing gaps within the field of mindset research.

The subsequent section delves into an exploration of the language mindset, encompassing the conceptualization of this construct and its relationship to the mindset meaning-system. Additionally, it encompasses an examination of the domain-specific language mindset.

The third section provides an exploration of domain-specific language mindset.

The fourth section identifies the existing gaps within the study of mindset and language mindset.

In the fifth section, a comprehensive elucidation of the conceptual framework employed in the current study is presented, offering a thorough explanation of its principles and elements.

Finally, the concluding section presents a concise summary of the entire chapter, encapsulating the key insights and contributions made throughout the review.

2.1 Mindset and Meaning System

The concept of mindset focuses on beliefs about personal change, whereas beliefs in language learning encompass a broader range of ideas that influence learner behavior. The term mindset, commonly defined as the belief in one's capacity to change or remain fixed (Dweck, 2006), should be distinguished from the broader

concept of beliefs in second language acquisition. While mindset emphasizes one's perception of the ability to improve, beliefs refer to a wider array of ideas and opinions that learners hold about various aspects of language learning (Kalaja &

Barcelos, 2007). These beliefs include views on how language works and how it should be learned, shaped by both personal experiences and external influences. Such beliefs significantly impact learner behavior (Miller & Ginsberg, 1995; Abraham & Van, 1987; Wenden, 1986; Gardner, 1988). In essence, mindset is a specific type of belief centered on personal change, whereas beliefs in general encompass a broader cognitive framework that guides learners' attitudes and actions.

Mindset, based on implicit theories, shapes how individuals set goals and respond to challenges in learning contexts. Mindset is grounded in psychological theories known as implicit theories, which explain how individuals' beliefs influence their goal-setting processes and behavioral responses (Dweck, 1975; Diener & Dweck, 1980; Leggett, 1985; Dweck & Leggett, 1988). Dweck and Leggett developed a framework to uncover the cognitive mechanisms behind different belief systems. Their research demonstrated that learners' beliefs about intelligence could predict the types of goals they pursue. Building on this work, subsequent studies proposed that implicit theories serve as meaning systems—mental frameworks that include beliefs about effort, goals, and behaviors aligned with those beliefs (Dweck & Yeager, 2019). These theories fall into two main categories: the entity theory, which views intelligence as fixed, and the incremental theory, which sees intelligence as changeable and developable.

Learners' meaning systems, influenced by their implicit theories, determine their goal orientation and interpretation of effort and achievement. Learners who adopt an entity theory tend to prioritize positive evaluations of their ability and interpret effort as a sign of low competence. Consequently, they often pursue performance-oriented goals. In contrast, learners aligned with the incremental theory place value on learning and mastery, regarding effort as a strategic tool for improvement. These learners are more likely to adopt learning-oriented goals (Blackwell et al., 2007; Miele et al., 2013). Although some growth-oriented learners may also pursue performance goals, they interpret achievement differently. For them, success reflects progress and personal growth, whereas fixed-minded learners see it as a validation of natural ability (Yu & McLellan, 2020).

Students with different mindsets exhibit distinct emotional and behavioral responses to academic challenges. In classroom settings, when learners with a fixed mindset encounter challenging tasks, they often experience negative emotions such as anxiety, shame, and boredom. These reactions stem from their perception that increased effort implies a lack of ability. Furthermore, when faced with unexpectedly challenging tasks, the likelihood of successfully completing them decreases. Thus, learners with a fixed mindset find their task engagement hindered by concerns over

the anticipated outcomes, leading to a state of confusion. In an effort to evade judgments of incompetence, these learners tend to exhibit a lack of persistence and withdraw from challenging tasks due to apprehensions surrounding potential failure. Conversely, when learners with a growth mindset confront unexpectedly challenging tasks, these learners direct their attention not towards the difficulties or potential failures but rather towards understanding why they are unable to complete the tasks and identifying approaches to successfully accomplish them. They invest additional effort in problem-solving, engaging in self-monitoring and figuring out new strategies to effectively address the assigned tasks. Consequently, learners consistently maintain a focused attention on the tasks at hand, thereby increasing their likelihood of discovering effective strategies. Furthermore, when learners with a growth-oriented goal orientation successfully complete assigned tasks, they experience intrinsic satisfaction because they recognize the value of their effort (Dweck & Leggett, 1988; Jamieson et al., 2018; Sethi & Shashwati, 2019).

Implicit theories influence learners' self-concepts, goal setting, and behavior, extending their impact beyond the classroom to broader social contexts (Mendoza & Yan, 2025). These two belief systems offer insight into how learners manage their self-esteem in response to academic difficulty. The entity theory provides a defensive mechanism for learners when confronted with challenges, whereas the incremental theory promotes persistence under similar circumstances. Learners develop self-concepts that shape how they set goals and behave in alignment with their implicit theories. Importantly, the influence of these belief systems extends beyond academic contexts, informing how individuals view themselves and interact with others in society.

Dweck introduced the terms fixed mindset and growth mindset to simplify and popularize the concept of implicit theories. To make the concept of implicit theories more accessible, Dweck (2006, 2017) introduced the term mindset, referring to individuals' self-perceptions. She categorized these into two primary types: the fixed mindset, aligned with the entity theory, and the growth mindset, aligned with the incremental theory. These terms have since become widely used and have significantly shaped educational research and practice.

This section provided an overview of mindset theory and the mindset meaning system, showing how beliefs influence goal orientations, emotion, and behavior. This understanding serves as the basis for the next section, which explores the characteristics of mindset as a psychological construct.

2.1.1 The Characteristics of Mindset Construct

Research suggests that mindset demonstrates characteristics similar to personality traits, showing potential for both consistency and change over time through intervention. Empirical evidence from Molway and Mutton's (2020) study suggested that mindset tends to exhibit trait-like characteristics, although the growth mindset can be cultivated through mindset interventions over a period of time (Blackwell et al. 2007; McCutchen et al., 2016; Elmore, 2016; Khan, 2019). According to Diener et al. (2018), personality traits are defined by consistency, stability, and individual differences which are qualities that also appear to describe the mindset construct.

Mindset shows consistency in how learners approach challenges and performance, with clear behavioral patterns tied to either a fixed or growth orientation.

Learners with a fixed mindset often exhibit heightened concern about performance and fear of being perceived as incompetent, while those with a growth mindset seek out challenging tasks and consistently invest effort in the learning process (Burnette et al., 2013; Dweck et al., 2014).

Mindset also demonstrates a degree of stability over time, with longitudinal studies linking it to sustained academic behaviors and outcomes. Implicit theories are reflected in learners' self-perceptions, academic goals, and responses to challenges across varied contexts. For example, Blackwell et al.'s (2007) longitudinal study showed that mindset could predict long-term academic achievement in mathematics. However, these beliefs are also malleable. Interventions have been shown to help learners adopt incremental-theory-related traits such as setting learning goals and applying effort adaptively. This supports the notion that environmental factors can shape psychological traits (Diener et al., 2018). McCutchen et al. (2016) also found that learners with a growth mindset experienced a slower decline in standardized test scores over three semesters. Similarly, Khan's (2019) findings reinforced the trait-like nature of mindset by demonstrating its stability over time.

The concept of individual differences highlights the unique behaviors individuals exhibit based on their personality traits, including their mindset. Numerous studies on implicit theories have shown that learners who endorse different mindsets demonstrate distinct behavioral patterns. For example, Yeager and Dweck (2012) examined the relationship between mindset and resilience in academic settings. Their study found that adolescents who received an intervention promoting an incremental theory were less likely to engage in aggressive retaliation compared to those who did not receive the intervention. Similarly, Bostwick et al. (2019) investigated the role of growth orientation in shaping students' performance in mathematics over one year.

Their findings revealed that learners with a growth mindset consistently sought improvement, set learning goals, and showed persistent effort when facing mathematical challenges. Growth-oriented thinking significantly enhanced students' engagement in both mathematics classrooms and tasks. Collectively, these studies underscore how mindset reflects the core traits of consistency, stability, and individual differences which support the view that mindset can be conceptualized as a trait-like construct.

This section established that mindset shows consistency, stability, and variation across individuals, similar to personality traits. These insights lay the foundation for the next section, which discusses the complexity of mindset as a psychological construct.

2.1.2 Complexity of Mindset

Ongoing discussions in the literature question whether mindset should be conceptualized as a single continuum or as two distinct constructs. A central issue in understanding implicit theories lies in whether mindset represents a unidimensional spectrum or two separate belief systems. This debate arises from differing views on how the entity and incremental theories relate to one another and whether they can coexist within an individual's belief structure.

Although the initial model framed mindset as a unidimensional construct, emerging research suggests that individuals may hold both theories simultaneously, depending on context. Dweck et al. (1995) originally proposed that implicit theories exist as mutually exclusive alternatives, leading to a unidimensional model of mindset. However, they also acknowledged that belief systems can be unstable and context-dependent, allowing for both theories to co-occur, with one becoming dominant in a given situation. Supporting this view, Lou et al. (2017) emphasized the intricate and fluctuating nature of learners' mindset beliefs, encouraging some scholars to treat the theories as independent constructs. This, however, introduces challenges related to the validity and reliability of the measurements used and the interpretation of findings across studies.

The exploration of both unidimensional and multidimensional models has sparked continued debate over the most accurate way to conceptualize mindset. The alternative model, which treats entity and incremental theories as separate dimensions, has attracted interest in educational psychology. Cutumisu and Lou (2020) identified several theoretical approaches, some supporting a unidimensional construct and others promoting a multidimensional view. Martin's (2015) longitudinal study further advanced this discussion by demonstrating a bidirectional relationship between

mindsets, where endorsing one theory predicted a decline in the other. These findings suggest that both models may offer valid perspectives, as reciprocal patterns between mindsets appear in each.

Recent studies using both models reveal that learners may endorse fixed and growth beliefs to varying degrees, depending on the learning domain. Cutumisu and Lou's (2020) study examined university students' mindsets using both the one-factor and two-factor models, finding both approaches statistically valid with only slight variations in outcomes. These results highlight the need for continued research to determine how best to operationalize mindset across different contexts. In addition, findings from previous research (Dweck et al., 1995; Mercer & Ryan, 2010; Dweck, 2015; Khan, 2019) show that learners may simultaneously hold both fixed and growth beliefs across domains such as language learning, further supporting a flexible and domain-sensitive approach to mindset assessment.

Given these complexities, future research should examine how mixed beliefs function and refine instruments that can capture their varied influence on learning. A more detailed understanding of how learners combine entity and incremental beliefs across different contexts could inform the development of research tools with greater relevance and applicability. This is especially important in language education, where mindset may shape learners' engagement, persistence, and long-term achievement.

The above sections explained mindset theory, its characteristics, and its complexity. It began by explaining how mindset functions as a belief system that guides learner's goals, emotion responses, and behaviors. Then, it described how mindset shows consistency, stability, and individual variation, similar to personality trait, while also allowing for change through mindset intervention. Lastly, it discussed the debate over whether mindset is a single continuum or two separate constructs, and it highlighted how learners may hold mixed beliefs depending on the context. These sections established the theoretical foundation for the present study. This study extends previous research by exploring the dynamic nature of foreign language speaking mindset. The next section focuses on language mindset and explains how learners form beliefs about their ability to learn new language.

2.2 Language Mindset

2.2.1 Primary Investigations of Mindset in Second Language Acquisition

Early research in second language acquisition highlighted the critical role of learners' beliefs in shaping their engagement, motivation, and learning outcomes. The concept of implicit theories has been widely applied, particularly in education. In the

context of second language acquisition and applied linguistics, researchers have investigated how learners' beliefs relate to language learning processes. Horwitz's (1988) foundational study on the Language Learning Inventory identified several belief domains that influence language learners, including perceptions of difficulty, beliefs about language aptitude, the nature of language learning, learning strategies and communication, and learner motivation. These beliefs were shown to impact learners' expectations, confidence, and engagement. For example, learners who underestimated how long language learning takes often became frustrated when progress was slower than expected, while those who anticipated a longer process sometimes lost motivation. Students who believed that success depends on innate talent tended to have lower expectations for their own achievement. Beliefs about the nature of language learning also influenced study behaviors, such as focusing mainly on vocabulary memorization while neglecting other language skills. In terms of classroom practice, learners who prioritized grammatical accuracy were often uncomfortable with communicative activities that involved spontaneous speaking. Some learners with only moderate intrinsic motivation also disengaged once course requirements were fulfilled, especially if they saw limited personal or professional value in learning another language. Although Horwitz did not explore cognitive or emotional processes in detail, her study provided valuable insight into how learner beliefs influence behavior and helped establish this area as a key focus in language education research.

Building on Horwitz's work, Mori (1999) explored the cognitive factors contributing to individual differences in language learning and further examined the relationship between beliefs and learning behaviors. Mori's study revealed that beliefs about language learning operate as distinct constructs, separate from general beliefs, and are closely aligned with the specific demands of language learning tasks. This domain-specific nature was demonstrated in findings such as learners' ability to view kanji as difficult without perceiving the entire Japanese language as equally challenging.

The study contributed to identifying key belief components that could be integrated into a structured model of learners' theoretical frameworks. Among the most significant findings was the observed negative correlation between the belief in quick learning and the willingness to take risks. Learners who believed they could rapidly acquire a second language were less likely to view risk-taking and error-making as valuable, often placing limited importance on sustained effort. In contrast, the study highlighted that learners who accepted mistakes as part of the learning process and regarded language learning as difficult but enjoyable tended to report higher levels of

satisfaction and persistence. Additionally, belief in fixed ability was associated with lower levels of language proficiency, while belief in the malleability of ability was positively linked to improved outcomes. These findings aligned with broader theoretical perspectives on mindset, particularly the distinction between fixed and growth beliefs, and underscored how learner beliefs influence not only attitudes but also actual academic performance.

Extending these findings, Mori's research underscored the influence of learner belief systems on language learning behavior while identifying important gaps in instructional research. Mori (1999) substantiated the connection between language learners' beliefs and their cognitive and behavioral engagement, offering empirical support for the conceptualization of belief systems within second language learning. The study clarified how learners who held different belief patterns responded differently to learning situations, particularly in terms of motivation, risk tolerance, and achievement. However, despite these insights, Mori's research also drew attention to a lack of studies that investigate how instructional approaches might influence students' belief systems. This absence has led scholars to call for further inquiry into the development and transformation of language learning beliefs. As such, the findings from Mori's study have not only deepened understanding of the belief-behavior relationship but have also opened new research directions for exploring how language instruction can support more constructive learner beliefs and encourage sustained engagement in second language learning.

This section introduced the concept of language mindset and explained its relevance in second language acquisition. The next section explores how early studies in second language acquisition contributed to shaping the understanding of language learning beliefs.

2.2.2 The Current Conceptualization of the Language Mindset

Recent studies have explored how learners' language mindsets can be understood along a continuum, rather than as fixed categories. Mercer and Ryan (2012) investigated the beliefs of English as a Foreign Language (EFL) learners by applying the framework of implicit theories to conceptualize language learning mindsets. Through in-depth interviews conducted in Austria and Japan, the researchers developed a foundational basis for theoretical models concerning language mindsets. Their findings suggested that learners often express beliefs aligning with both fixed and growth mindsets to varying degrees, indicating that mindsets operate along a spectrum rather than as binary categories. This observation led to the view that a dominant mindset may emerge depending on the learning domain or context.

Expanding on this, the study highlighted the domain-specific nature of language mindsets, which vary across language sub-skills and are influenced by learners' broader perspectives on language learning. The researchers proposed that mindsets can be understood as domain-specific constructs tied to the individual sub-skills involved in language acquisition. As a result, learners may simultaneously hold different beliefs about their capabilities in listening, speaking, reading, or writing. However, this complexity became more apparent when comparing learner data across cultural contexts. The Austrian and Japanese data revealed a divergence: learners who viewed language learning holistically demonstrated less variation in mindset across sub-skills. Notably, Japanese learners perceived language learning as a single, unified domain, unlike their Austrian counterparts. This pattern raised important questions about the origins of such beliefs, prompting speculation about the role of cultural influences or learners' varying levels of proficiency in shaping their mindset orientations.

Building upon the cultural dimension, the study also revealed distinctions in mindset tendencies between Japanese and Austrian learners. Japanese learners appeared more inclined to endorse an incremental theory or growth mindset, expressing a strong belief in the importance of effort investment. In contrast, Austrian learners demonstrated a wider range of mindsets, without a clear trend. Interestingly, although Japanese students verbally expressed beliefs consistent with growth mindset principles, some of their responses also reflected notions typically associated with a fixed mindset. This contradiction led the authors to consider the influence of prevailing social narratives in each learning environment. It was proposed that learners might not be consciously biased toward either theory but may instead adopt effort-focused discourse shaped by societal expectations. Alternatively, their verbal endorsements of perseverance and effort may be influenced by cultural scripts, while their behaviors reflect characteristics more aligned with the entity theory.

The findings also emphasized a strong link between learners' mindsets and the types of goals they set during language learning. Learners who adopted a growth mindset were more likely to value effort and the strategic use of learning techniques. Conversely, students who doubted their language learning ability often set lower achievement goals, suggesting that mindset beliefs directly impact learners' expectations and the goals they pursue in language education.

In addition to goal setting, social comparison emerged as a key factor shaping learners' perceptions of ability and influencing their mindset development. Learners often assessed their own aptitude by comparing themselves to peers. Those who

performed well in class tended to view themselves as naturally talented in language learning, reinforcing a belief in fixed ability. Social comparison thus played a critical role in fostering varied beliefs about language potential. The study also found that learners who believed language proficiency could only be achieved through immersion experiences abroad were more likely to hold fixed mindset beliefs. This perception implied that relying on effort alone was insufficient, further reinforcing the idea that ability is innate and unchangeable.

Although a growth mindset can support language development, the findings suggested that mindset alone does not guarantee success. Effective instruction should also cultivate learners' awareness of their own learning processes and strategies. The study emphasized that interventions promoting growth mindsets must be accompanied by efforts to develop students' metacognitive understanding of how they learn. This pedagogical implication is significant, as it encourages educators to integrate both mindset training and strategy instruction to better support learner progress. In a follow-up publication, Ryan and Mercer (2012) offered a synthesized definition of the language learning mindset, drawing on Dweck's theory. According to their definition, learners with a growth mindset believe their language abilities can be developed through effort, while those with a fixed mindset view their abilities as static. The authors stressed the importance of mindset in shaping learners' developmental potential, identifying it as a critical factor in promoting change and progress in language acquisition.

The evolving concept of language mindset invites further investigation into its relationship with other psychological and educational factors. The study suggested that future research should examine how language learning beliefs interact with variables such as proficiency levels, cultural backgrounds, learning environments, goal orientations, social comparison patterns, learning styles, prior experiences, and strategy use. Exploring these dimensions in greater depth would contribute to a more detailed understanding of how language mindset operates within diverse learner contexts and how it influences the broader language learning experience.

This section discussed how recent work has refined the understanding of language mindset as a spectrum of beliefs influenced by contextual and cultural factors. The next section examines how these beliefs connect with learner motivation.

2.2.3 Language Mindset and Motivation

Language mindset and motivation have been shown to share a close relationship, as researchers have elaborated on the influence of mindset on learners' goals and their engagement in language learning (Horwitz, 1988; Mori, 1999; Mercer &

Ryan, 2012a). In brief, the concept of mindset illustrates learners' perceptions of their own abilities, while motivation theory describes the mental processes that guide learners' behavior in language learning contexts (Williams et al., 2015). Consequently, several attempts have been made to explore the intricate relationship between language mindset and motivation. In the initial stages of conceptualizing language mindset, researchers embarked on the task of differentiating language mindset from intelligence mindset and investigating learners' language mindset. Additionally, several researchers endeavored to explore the correlation between learners' beliefs about their abilities and how these beliefs influenced goal-setting behaviors and responses (Lou & Noels, 2016, 2017). The findings consistently revealed that different language mindsets played a pivotal role in guiding learners to determine their goals in language learning and subsequently adapt their behaviors in alignment with these goals. Consequently, the conceptualization of language mindset proved instrumental not only in describing learners' beliefs regarding their own language learning abilities but also in elucidating how these beliefs influenced their diverse responses when confronted with challenges in language learning contexts. Subsequently, the conceptualization of language mindset has been enriched by the incorporation of other factors rooted in motivation theory, including emotions (Lou & Noels, 2017; Altunel, 2019; Ozdemir & Papi, 2022). Through the examination of how these psychological constructs interact and influence learners' cognition, affect, and behavior, researchers have garnered valuable insights into the intricate meaning system of language mindset.

This section explained how language mindset shapes and is shaped by motivational factors. The following section focuses on how these beliefs are organized within a broader psychological framework known as the language mindset meaning system.

2.2.4 Language Mindset Meaning System

Recent efforts in second language research have aimed to conceptualize the language mindset as the core component of a broader meaning-making system. These efforts position the language mindset as central in shaping learners' interpretations of their experiences, behaviors, and goals in language learning. Within this system, the mindset functions as a guiding structure through which learners form judgments and make meaning of their successes, failures, and motivation.

Building on this foundation, Lou and Noels (2017) developed the Language Mindset Inventory (LMI) to examine learners' mindset using three key dimensions rooted in second language acquisition theory. These dimensions include general

language intelligence beliefs (GLB), second language aptitude beliefs (L2B), and age sensitivity beliefs (ASB). GLB refers to the belief about whether general language intelligence is malleable or fixed. L2B refers to the belief about whether second language learning ability is able to improve. ASB refers to the belief about whether language learning can improve within specific time frame. Their findings indicated that learners endorsing an entity mindset tended to score lower on incremental belief scales. The Language Mindset Inventory demonstrated strong validity in distinguishing learners' mindset profiles. It also aligned with previous research, showing that those with an entity mindset often exhibited helplessness and a heightened fear of failure in language learning. From this basis, Lou and Noels proposed the Mindsets-Goals-Responses Model, illustrating how language mindset influences the types of goals learners set and their subsequent reactions to challenges. Their model revealed that learning goals mediate the relationship between learners' mindset and their intention to persist in language learning. Specifically, learners endorsing entity beliefs tended to adopt performance goals, experience heightened fear of failure, and display a lower intention to continue learning. Perceived competence also played a mediating role. For example, learners with low self-perceived competence and a fixed mindset demonstrated even greater fear of failure in demanding situations.

Lou and Noels (2017) proposed the Mindset-Goals-Responses Model to illustrate how language mindset influences learners' academic behavior through interconnected process. The model is presented in Figure 2.1 below.

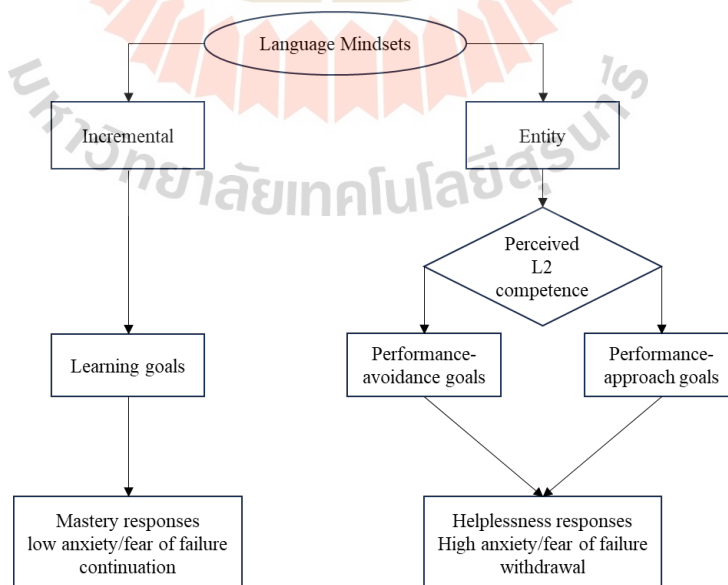


Figure 2.1 Mindset-Goals-Responses Model (Lou & Noels 2017: 217)

Figure 2.1 presents a model showing that learners' beliefs about language ability shape the types of goals they pursue, which in turn affect their emotional and behavioral responses to language learning challenges. The model highlights that learners with a fixed mindset are more likely to adopt performance goals, experience fear of failure, and demonstrate helplessness responses. In contrast, learners with a growth mindset tend to set mastery goals, show greater resilience, and maintain higher motivation when facing difficulties.

The Mindsets-Goals-Responses Model provides a basis for further inquiry into how mindset interacts with a range of contextual and learner-specific variables. Lou and Noels emphasized the importance of examining how mindsets are shaped by individual learning needs, language sub-skills, the broader learning environment, and conditions such as exposure to language outside the classroom. These dimensions present promising opportunities for investigating how different variables shape learners' belief systems and mindset development in diverse language learning settings.

Expanding their model, Lou and Noels (2019) introduced a theoretical framework that integrates language mindset, motivation, and meaning-making processes into a unified system. This expanded model identifies six variables connected to language motivation: effort beliefs, attribution, achievement goals, failure and mistake interpretation, self-regulatory tendencies, and competence-based emotional tendencies. According to this framework, learners' mindset forms the central core around which these motivational and emotional variables are organized. This conceptualization has gained empirical support in recent studies, confirming its relevance for understanding how beliefs shape language learning behavior.

The extended model places language mindset at the center of a broader meaning-making system related to language learning motivation and emotional experience as presented in Figure 2.2.

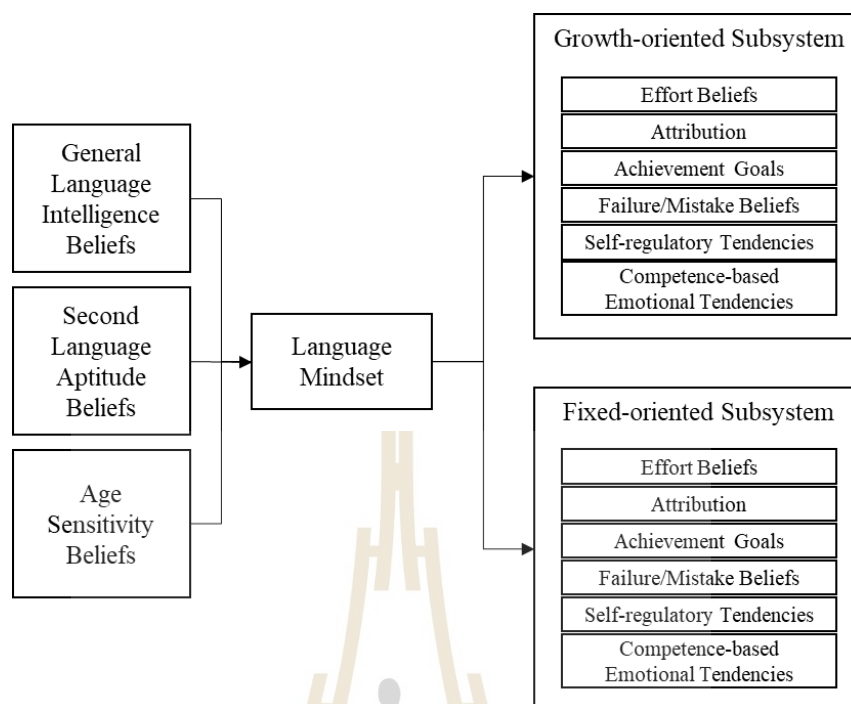


Figure 2.2 Language Mindset as a Core of Meaning System

Figure 2.2 illustrates that language mindset serves as the core construct around which six interrelated components are organized. The figure emphasizes that learners' mindset orientation affects how they interpret their experiences, set goals, regulate learning, and respond emotionally to success and failure. This integrated model supports the view of mindset as part of a dynamic and interconnected psychological system.

Effort belief, as a key element of this system, refers to how learners perceive the role of effort in language learning. Learners with a growth mindset view effort as a pathway to improvement, believing that success in language learning depends on hard work and persistence. In contrast, those with a fixed mindset interpret effort as a sign of low ability. Wilang (2021) found that growth mindset learners were motivated by challenges and viewed effort positively, while fixed mindset learners saw effort as an indicator of deficiency. Similarly, Khajavy, MacIntyre, and Hariri (2021) found that learners with a growth mindset demonstrated greater persistence, whereas those with a fixed mindset were less likely to sustain interest and effort in learning activities.

Attribution has been widely recognized in motivation research as a key factor influencing learners' beliefs and behaviors in language learning. This variable refers to how learners explain the causes of their past academic outcomes, which can significantly shape their future engagement and performance (Dörnyei, 2003). Erten and

Burden (2014) illustrated this concept in their study, showing that lower-achieving learners often attributed their performance to external, uncontrollable factors, whereas higher-achieving learners tended to attribute their success to internal, controllable causes. These attribution patterns align closely with the framework of fixed and growth mindsets (Guan et al., 2024). Learners with a growth language mindset are more likely to perceive language learning outcomes as controllable, believing that their abilities can improve through effort and persistence. In contrast, learners with a fixed language mindset typically view these outcomes as predetermined by natural talent. As a result, they are more likely to interpret failures or mistakes as evidence of limited ability rather than as opportunities for development (Lou & Noels, 2019).

Achievement goals, another variable in the system, refer to the types of objectives learners set during their language learning. Learners who pursue mastery goals aim to improve their competence over time, while those who adopt performance goals focus on outperforming others or avoiding negative evaluation. Lou and Noels (2019) found that learners with a growth mindset tend to favor mastery goals, while those with a fixed mindset are more likely to pursue performance goals. This relationship has been confirmed by Burnette et al. (2013) and Sadeghi et al. (2020), who observed that goal orientation is consistently linked to learners' underlying beliefs about intelligence and ability. Goal orientation is also interrelated with other variables such as self-regulation and learners' interpretations of failure (Derakhshan & Fathi, 2024).

The way learners interpret failures and mistakes plays a crucial role in shaping their engagement and emotional reactions during language learning. Growth mindset learners tend to view failure as an opportunity to learn and adjust strategies, while fixed mindset learners perceive failure as evidence of a lack of innate ability (Lou & Noels, 2019). Lou and Noels (2016, 2017) found that learners with a fixed mindset were more likely to adopt performance goals and avoid challenges, particularly when they attributed past failures to personal inadequacy. Their findings were supported by subsequent studies (Derakhshan & Fathi, 2024; Sadeghi et al., 2020; Yao et al., 2021), which confirmed that fixed mindset learners are more likely to experience helplessness, whereas growth mindset learners interpret setbacks as manageable and learning-oriented experiences.

Self-regulatory tendency refers to the behavioral patterns that learners exhibit when facing setbacks in language learning. This construct is closely related to learners' goal orientations and their interpretations of failure and mistakes, which are shaped by their goal-setting behaviors and the affective processes they use to regulate

their learning (Dong, 2024; Oxford, 2011; Shih, 2019). Previous studies have shown that learners who adopt a growth language mindset are more likely to actively seek learning strategies and feedback in order to improve their language skills. In contrast, those with a fixed language mindset tend to avoid challenging tasks that might expose them to criticism, often interpreting feedback as a reflection of their lack of competence (Lou & Noels, 2019). Empirical evidence provided by Papi et al. (2019) strongly supports this conceptual framework. Their study found that learners with a growth mindset perceived corrective feedback as a valuable resource for enhancing their language learning and were more likely to adjust their strategies accordingly. On the other hand, learners with a fixed mindset interpreted feedback as evidence of their inadequacy, which led them to avoid receiving corrective feedback in classroom settings. These findings are consistent with those reported by Papi et al. (2020), as well as Cutumisu and Lou (2020), reinforcing the critical role of mindset in shaping learners' self-regulation in language learning contexts.

Competence-based emotional tendency reflects the emotional experiences associated with language learning and how these differ based on mindset orientation.

Learners with a growth mindset generally report lower anxiety and higher enjoyment, while those with a fixed mindset experience greater anxiety and reduced positive emotions (Liu et al., 2025; Lou & Noels, 2019). Ozdemir and Papi (2022) found that a fixed mindset predicted higher speaking anxiety, whereas a growth mindset was linked to increased confidence. Similar findings were reported by Zarrinabadi et al. (2022), who observed that growth mindset learners perceive language learning as controllable and thus more enjoyable. Recent research by Amini Farsani and Seyedshoja (2025) and Dong (2022) added further evidence by demonstrating that a fixed mindset significantly predicted negative emotional states such as anxiety, hopelessness, boredom, and anger, particularly in online language learning contexts. In contrast, a growth mindset showed a negative correlation with these negative emotional experiences. Additionally, Dong observed that learners with a growth mindset were more capable of acknowledging and expressing negative emotions such as boredom and anger in constructive ways. This tendency can be understood through the lens of learners' underlying meaning system. A growth mindset encourages learners to focus on effort and strategy use during the learning process, while a fixed mindset often leads them to concentrate on performance outcomes and fears of inadequacy (Dweck & Leggett, 1988).

Taken together, the research underscores that adopting a growth mindset fosters constructive beliefs and behaviors that enhance the language learning

experience. Growth mindset learners are more likely to value effort, perceive learning as controllable, pursue mastery goals, learn from mistakes, regulate their learning process, and experience more positive emotions (Bai et al., 2025). Conversely, a fixed mindset is associated with beliefs that devalue effort, perceive learning as uncontrollable, prioritize performance goals, and lead to avoidance, anxiety, and negative effects.

This conceptualization presents language mindset as a dynamic system that influences and is influenced by various psychological, motivational, and contextual factors. Rather than treating mindset as a static trait, the meaning-system model views mindset as a dynamic process that can be activated under certain conditions. This dynamic nature highlights the need for future empirical research to examine how language mindset systems operate within real-world learning contexts and under specific instructional and cultural conditions.

The current section described how language mindset functions as part of a broader meaning-making system. The next section explores how external context shapes this system.

2.2.5 The Influence of Context on Language Mindset

Contextual factors have a significant influence on the development of learners' language mindsets, particularly within the English as a Foreign Language (EFL) environment. Recent hermeneutic research by Shirvan et al. (2021) explored the ecology of writing mindset in EFL contexts by examining how mindset is formed across multiple levels of the learning ecosystem. At the microsystem level, the study emphasized the importance of teacher feedback on learners' effort and perceived natural talent, which played a critical role in shaping learners' fixed or growth writing mindsets. At the mesosystem level, learners' mindset development was influenced by their previous experiences with second language writing tasks and assessments in high school. Within the exosystem, the study found that curriculum design exerted an indirect effect. Limitations in curriculum emphasis on writing skills, along with a lack of practical writing opportunities, contributed to learners viewing writing as a specialized skill reserved for those with natural talent. At the macrosystem level, cultural norms that prioritize listening and speaking over writing discouraged learners from investing time and effort in writing development. Finally, at the chronosystem level, the study documented how learners' writing mindsets fluctuated over time, particularly in response to classroom activities and teacher feedback. These findings illustrate that mindset is not fixed but evolves across contexts and experiences.

From this ecological understanding, further evidence supports the idea that language mindsets are shaped through dynamic social interactions and environmental influences. The classroom environment, and particularly the interaction between teachers and learners, plays a vital role in socializing learners into particular mindset orientations. The quality and focus of these interactions can determine whether learners lean toward fixed or growth mindsets in language learning. Therefore, it is essential for educators to recognize the impact of classroom practices when designing and implementing language curricula. Special attention must be given to ensuring balanced development across all language sub-skills. If certain skills, such as writing, are undervalued in curriculum design or classroom emphasis, learners may internalize limiting beliefs about their potential, which may ultimately shape their mindset in restrictive ways. The ecological approach highlights the importance of viewing mindset as context-sensitive, responsive to instructional practices, and socially constructed within educational systems.

This section explained how instructional and environmental factors shape learners' mindset development. The next section examines how cultural background and social norms influence language mindset development.

2.2.6 Cultural Influence on Language Mindset

Cultural background and social interaction play a critical role in shaping learners' language mindsets, particularly in how they perceive their abilities and respond to language learning challenges. Language mindset is not formed in isolation; rather, it is embedded within the broader sociocultural context, shaped by shared social representations and educational practices (Bai & Wang, 2023; Shirvan et al., 2021; Wilang, 2024). Laurell et al. (2021) emphasized that emotionally infused cultural representations influence how learners perceive and evaluate intelligence and talent. These perceptions are not merely individual beliefs, but are cultivated through socially mediated practices and discourse. As a result, learners' beliefs about their language abilities are influenced by repeated exposure to cultural norms, values, and institutional expectations communicated through everyday interactions. Educational environments, therefore, play a vital role in transmitting and reinforcing these social messages, contributing to the development of fixed or growth language mindsets (Shirvan et al., 2021).

In this context, cultural frameworks such as individualism and collectivism have been recognized as important factors influencing learners' mindset orientations. According to Mercer and Ryan (2010), learners from collectivist cultures may prioritize conformity and social harmony over individual expression, which can influence their

willingness to take linguistic risks and engage in classroom communication. Similarly, Gan (2009) observed that many Asian students endorse the belief that ability can be improved through effort, reflecting a cultural inclination toward a growth mindset. However, despite these findings, research on language mindset remains limited in terms of its application to specific language skills such as speaking, particularly in EFL contexts. This is a notable gap in the literature given that speaking tasks often demand high levels of spontaneity, confidence, and resilience which are traits closely associated with learners' underlying mindsets.

In the Thai EFL context, cultural values significantly influence learners' speaking behaviors and contribute to the development of their language mindset. Communication in Thailand is deeply embedded in societal norms, with learners socialized to communicate indirectly and to maintain social cohesion (Shumin, 2002; Kakita & Palukuri, 2020). Thailand's classification as a collectivist society, where social conformity and politeness are highly valued, has been shown to affect how students engage in speaking activities (Hofstede, 2001; Kuo, 2013). Learners may hesitate to express opinions openly or may include off-topic information to maintain harmony, which can affect their clarity and confidence when speaking in classroom settings (Peng et al., 2005; Etaa et al., 2017; Chaisiri, 2023). These communication tendencies may shape students' perceptions of language ability, contributing to the internalization of either growth or fixed mindset beliefs depending on how effort, mistakes, and participation are valued in the learning environment.

Moreover, the hierarchical structure of Thai society further shapes learners' language mindset by influencing their perceptions of authority and risk in communication. Students are often acutely aware of their interlocutors' social or academic status. When speaking to teachers or senior peers, they may fear being judged or making mistakes, which can lead to reduced participation (Komolsevin et al., 2010; Pattapong, 2015; Ma et al., 2019). This reluctance to speak in formal settings may reinforce the belief that language proficiency is tied to natural talent or personality traits, rather than something that can be developed through practice and feedback. As such, learners may adopt fixed mindset beliefs, especially if they perceive communicative success as being beyond their control.

Given the influence of sociocultural norms on students' communication behavior and mindset formation, educators should incorporate these contextual factors into language instruction and assessment. Understanding the relationship between culture and language mindset is particularly relevant in the Thai EFL context, where cultural expectations may inhibit learners' speaking engagement. Therefore, this

study addresses the need to explore foreign language speaking mindset among Thai undergraduate students, taking into account the specific cultural and social influences that shape their language learning experiences.

This section discussed how cultural influences contribute to learners' adoption of language mindset. These insights highlight the need for domain-specific investigations.

Section 2.2 examined the development and function of language mindset in second language acquisition. It began by explaining how learners' beliefs influence their motivation, learning strategies, and emotional responses. Then, it reviewed the foundational and contemporary studies that demonstrated how language mindset operated along a continuum and interacts with motivational factors. It showed that language mindset is shaped by instructional context, socio-cultural values, and learner experiences. It highlighted that language mindset is dynamic and context-sensitive. Based on this understanding, the next section focuses specifically on domain-specific language mindset.

2.3 Domain-specific Language Mindset

2.3.1 Domain-specific Language Mindset

The concept of language mindset has increasingly been recognized as domain-specific, with learners potentially adopting different mindsets across various language sub-skills. Mercer and Ryan (2012) emphasized that language mindsets can be conceptualized as domain-specific, particularly in relation to the distinct sub-skills involved in language learning. Anderson's (2018) study examined learners' mindsets across academic and non-academic domains, with findings suggesting variability in perceived potential across domains such as listening, writing, and public speaking. Undergraduate learners in the study demonstrated different perceptions of their developmental potential in these domains, indicating that mindset orientations may differ depending on the specific language skill. In recent years, many researchers have aimed to provide empirical support for the notion of domain-specific language mindset and have attempted to operationalize it accordingly.

Among the first sub-skills explored under this framework was reading, which has received considerable attention in mindset-related research. Andersen and Nielsen (2016) demonstrated that a growth mindset intervention could significantly enhance learners' reading and writing outcomes. Similarly, Khajavy et al. (2021) developed and validated a reading mindset scale, advancing the measurement of mindsets in the reading domain. Building on this, Drumgoole (2021) reported a modest yet significant

relationship between mindset and achievement in Spanish reading and listening, further reinforcing the relevance of domain specificity in language learning research.

Following initial work in reading, research attention has gradually expanded to other sub-skills, including writing. Schrodtt et al. (2019) found that growth mindset instruction promoted perseverance and independence in young learners' writing. Later studies by Bai et al. (2020) and Bai and Guo (2021) confirmed a positive association between growth mindset and writing achievement among high-performing students. These studies also revealed that growth mindset influenced learners' self-regulation strategies and effort, which mediated their writing performance. In addition, Shirvan et al. (2021) investigated how learners' writing mindsets interact with their broader language learning ecosystem. More recently, Yao and Zhu (2024) highlighted that learners with a growth mindset in writing are more likely to seek feedback, while fixed mindset learners are less inclined to do so. Furthermore, Yao et al. (2024) linked a growth writing mindset with positive learner attitudes.

Core language components such as vocabulary and grammar have also been examined in the context of mindset, extending the domain-specific approach. Zarrinabadi et al. (2023) explored learners' mindsets in relation to grammar learning. Their findings indicated that learners who adopted a growth mindset were more likely to apply a range of learning strategies in both second and third language grammar acquisition. Similarly, Teng (2024) showed that Chinese undergraduates with a growth vocabulary mindset developed more positive attitudes and adopted proactive learning strategies.

Listening and speaking domains have also been addressed in recent studies, further supporting the idea of domain specificity in language mindset. Zanjani et al. (2024) developed a listening mindset questionnaire grounded in the Language Mindset Inventory by Lou and Noels (2019). Their findings confirmed that listening mindset could effectively predict learners' behavior in listening tasks. Likewise, research in the speaking domain has shown that learners' speaking mindset affects their performance, attitudes, strategic choices, and behavioral engagement in learning to speak (Derakhshan & Fathi, 2024; Stewart et al. 2017, 2019).

In the early stages of domain-specific language mindset research, qualitative approaches were predominantly employed to explore learners' beliefs across language sub-skills. Interviews of various types were conducted to provide rich, contextualized insights into how learners conceptualize their mindsets in relation to specific domains of language learning (Mercer & Ryan, 2010; Shirvan et al., 2021). As the field has progressed, researchers and educators have adopted a range of

methodological approaches to investigate domain-specific language mindset, incorporating both qualitative and quantitative strategies. Among the most widely used tools are mindset scales, including the Language Mindset Inventory (Lou & Noels, 2017), the L2 Reading Mindset Scale (Khajavy et al., 2021), the L2 Pragmatic Mindset Scale (Zarrinabadi et al., 2022), and the Listening Mindset Questionnaire (Zanjani et al., 2024). In addition to these instruments, intervention-based approaches have also been used, with several studies employing mindset interventions to improve learners' skills, such as in reading (Andersen & Nielsen, 2016; Wanzek et al., 2021). These diverse approaches contribute to validating both the measurements and the conceptual frameworks underlying domain-specific language mindset.

Despite these advancements, there remains a limited focus on exploring the relationship between domain-specific mindsets and non-academic variables. Current studies tend to rely predominantly on quantitative designs, which, while valuable, may not fully capture the complexity of learners' beliefs and experiences. Therefore, there is a growing need to develop new instruments and integrated methodological frameworks that incorporate both cognitive variables and qualitative insights. Such approaches can offer a more detailed understanding of how learners interpret their language learning experiences and how these interpretations are shaped by mindset-related beliefs. To address this gap, future research should pursue mixed-methods designs that can examine cognitive, affective, and contextual factors in shaping domain-specific language mindsets.

This section demonstrated that learners form different beliefs about different language sub-skills. It reinforced the domain-specific nature of language mindset. It revealed the importance of diverse methods and instruments to study this complexity. These insights lead to the next section which focuses on foreign language speaking mindset.

2.3.2 Foreign Language Speaking Mindset

Speaking is a key skill in language learning, and recent studies have explored how learners' mindsets influence their speaking performance and related emotional experiences. While much of the early research on mindset focused on general or academic performance, more recent studies have addressed learners' mindset specific to public speaking. Stewart et al. (2017, 2019) demonstrated that a growth mindset helped reduce public speaking anxiety and enhanced learners' speaking abilities. Following this, Denker et al. (2022) reported that students with a growth-oriented communication mindset exhibited stronger cognitive engagement and improved academic rapport.

Further research has linked second language speaking mindset to anxiety and confidence among specific learner groups. Ozdemir and Papi (2021) found that teacher assistants (TAs) with a fixed mindset were more likely to experience second language speaking anxiety, while those with a growth mindset exhibited higher self-confidence in speaking tasks. These findings aligned with results from Andi et al. (2022), who reported a positive correlation between fixed mindset and English-speaking anxiety. Nordin and Broeckelman-Post (2020) contributed further by exploring communication mindset as a trait variable. Their study uncovered a gender and cultural gap in communication mindset adoption: male students tended to hold growth mindsets, while Asian students were more likely to adopt fixed mindsets in diverse classrooms. Despite these findings, some inconsistencies have been reported in the literature regarding the impact of mindset on speaking-related anxiety. Although learners may adopt a growth communication mindset, some still experience anxiety when engaged in public speaking. These inconsistencies suggest that mindset alone may not fully account for learners' speaking performance or emotional responses, and that additional variables may mediate or moderate this relationship.

The current body of literature lacks a standardized and validated measurement tool specifically designed to assess speaking mindset. This gap in available tools highlights the need for more targeted investigations into speaking mindset and its implications. Although there is a growing interest in exploring mindsets within sub-skill domains, the scarcity of validated instruments for speaking mindset remains a limitation. As such, there is an urgent need to develop and implement domain-specific tools that can effectively examine learners' speaking mindsets and provide deeper insights into their speaking behavior, beliefs, and emotional regulation.

This section emphasized the influence of foreign language speaking mindset on learners' confidence, anxiety, and speaking behavior. It also identified a lack of standardized measurement tools for this sub-skill. Section 2.3 underscores the need for more focused research into domain-specific beliefs and tools that can capture the dynamic nature of language mindset. These findings set the stage for the next section which outlines the research gaps and proposes direction for current study.

2.4 Research Gaps

This section presents four key research gaps that support the need for the present study. These include theoretical, methodological, contextual, and pedagogical gaps. Each category represents areas where current research remains limited, inconsistent,

or underexplored. The following subsections elaborate on each gap and explain their relevance to the investigation of language mindset.

2.4.1 Theoretical Gaps

Theoretical limitations in existing research point to several areas that remain conceptually underdeveloped in mindset theory. These include the internal structure of belief systems, the specific circumstances that elicit mindset, and the underexplored advantages of the fixed mindset.

A key theoretical concern in mindset research relates to the structure and sequence of variables that influence belief systems. Dweck and Leggett's (1988) concept of implicit theories and goal responses has provided the foundation for extensive studies. However, debates continue regarding how implicit theories or mindsets should be conceptualized within the belief system. A specific issue involves the variable network and the order in which variables influence each other. Dweck et al. (1995) explained that this network is interconnected, meaning learners may follow different sequences in their formulation of mindset. Implicit theories may arise from cognition linked to the entity theory, such as negative expectations and reactions, or may emerge simultaneously with affective states, goal orientations, and responses. As a result, implicit theories are shaped and influenced by various interconnected variables (Sadeghi et al., 2020; Sigmundsson et al., 2020; Uslu & Durak, 2022).

Although researchers have explored the interactions among these variables, few studies have systematically examined their sequential development. It is important to understand how belief systems influence learner behavior, emotion, and cognition. Gaining deeper insight requires further investigation into how these variables interact across different learning domains, such as mathematics, science, and language. Studies in language learning have begun to address this need by integrating motivation and proposing a meaning system model. For example, Lou and Noels (2017), Lou et al. (2017), and Lou and Noels (2019) have developed a language-mindset meaning system that illustrates these interactions. Similarly, Haimovitz and Dweck (2017) emphasized the role of environmental socialization in mindset development. Future research should examine the ecological factors that contribute to mindset formation and how different systems influence learners' beliefs (Lou & Li, 2023).

Another theoretical gap involves the conditions under which mindset becomes activated during learning. Prior studies have shown that implicit theories tend to surface when learners encounter difficulties (Dweck & Leggett, 1988; Dweck et al., 1995; Mercer & Ryan, 2010). However, few theoretical models clearly define what constitutes a challenge or the specific conditions that trigger learners' mindset

expressions. It remains difficult to identify which types of tasks or situations will provoke learners' belief systems, as these responses vary across individuals. This complexity makes it necessary to consider additional variables such as proficiency level, learning achievement, and pre- or post-assessment outcomes.

Incorporating both independent and dependent variables into future research can clarify how learners' beliefs are activated. For example, independent variables could include task types or speaking activities, while dependent variables might include academic performance or observable classroom behaviors. These variables can help explain when and how learners' implicit theories are revealed. Furthermore, determining the appropriate timing for observing mindset activation is essential in identifying when specific theories are most likely to emerge.

Studies have typically explored the benefits of a growth mindset, while overlooking potential advantages of endorsing fixed beliefs (Campbell et al., 2021; Shoshani, 2021). The literature also highlights that entity theory may lead to negative outcomes, such as insecurity and reduced confidence (Hwang et al., 2019). This imbalance has limited the understanding of contexts in which the fixed mindset may provide adaptive value.

Despite its limitations, the fixed mindset may still offer benefits in certain learning conditions. For instance, learners who adopt performance goals aligned with their past achievements may use the entity mindset to validate their ability without feeling threatened by effort. In such cases, learners may reduce emotional vulnerability and maintain motivation by limiting situations that require excessive effort. This possibility raises important questions about the circumstances in which fixed beliefs might support learning outcomes.

Few studies have explicitly investigated the positive outcomes of the entity mindset, despite early findings suggesting its relevance. Lou and Noels (2020) reported a link between fixed mindset and avoidance behaviors in language learning, particularly in response to perceived rejection. Additionally, Schroder et al. (2019) found that a fixed mindset about anxiety predicted higher psychological distress. These findings illustrate the negative implications of entity beliefs but also point to the importance of examining their complexity. Further research is needed to determine whether there are specific educational contexts in which a fixed mindset may function as an adaptive belief.

The above section highlighted the intricacy of mindset as a dynamic and context-sensitive system. Researchers need to explore not only how belief systems form and interact but also how both fixed and growth mindsets may contribute to

learning outcomes under certain conditions. This theoretical reflection sets the stage for the next section which examines how current research methods may limit our understanding of this interconnectedness.

2.4.2 Methodological Gaps

In addition to theoretical issues, methodological limitations have emerged in existing mindset research, particularly in relation to measurement design, intervention implementation, and research methods. These limitations suggest the need for improved instruments and more diverse approaches to examining implicit theories.

A key methodological issue concerns the adequacy of quantitative instruments in capturing the complexity of learners' implicit theories. Numerous prior studies have relied on surveys or mindset inventories to assess beliefs (Dweck, 2000; Fazio & Olsen, 2003; Lou & Noels, 2017). Although widely used, such tools may not fully represent the depth and variability of mindset. Since implicit theories are abstract and embedded within individuals' belief systems, they are difficult to observe and quantify. Designing a reliable instrument requires clearly defining research objectives, selecting appropriate data formats, and developing an analysis plan based on initial findings (Cohen et al., 2007).

Several researchers have worked to operationalize mindset constructs through validated instruments, though challenges remain. Efforts to develop reliable surveys have included iterative testing and statistical analyses to ensure validity (Davis et al., 2016; Tock et al., 2021; Munika et al., 2022). However, definitional ambiguities persist, particularly regarding whether mindset should be treated as a single construct or two distinct factors. This lack of clarity complicates efforts to accurately measure mindset.

Experimental designs have also been used to examine mindset, however, they often emphasize academic performance rather than behavioral processes. Mindset interventions have demonstrated predictive associations with variables such as anxiety (Altunel, 2019), psychological distress (Schroder et al., 2019), resilience (Yeager & Dweck, 2012), engagement, and academic achievement (Bostwick et al., 2020; McCutchen et al., 2016). However, few studies have contributed detailed statistical analyses that explore how implicit theories function in learning contexts (Macnamara & Rupani, 2017; Khajavy et al., 2021). Furthermore, many studies have not aligned their objectives with the core function of mindset theory, which is to understand learners' responses to challenges (Yeager & Dweck, 2020).

To enhance the methodological depth of mindset research, some scholars have turned to neuroscience to examine learners' internal responses. In a notable study, Moser et al. (2011) explored the neural mechanisms associated with mindset. They found that learners with a growth mindset demonstrated positive brain responses when encountering mistakes. These responses involved self-monitoring and adaptive thinking. Their findings were supported by subsequent research from Schroder et al. (2014), which showed that growth-oriented learners displayed brain activity that supported task focus and adaptability. Although promising, neuroscience methods are rarely used in mindset research due to cost and logistical challenges.

Despite its limited application, neuroscience provides a compelling lens for examining the internal mechanisms of mindset systems. Neuroscientific findings can reinforce theoretical assumptions and help educators understand how learners develop resilience in the face of failure. Future studies should consider integrating neuroscience to explore the cognitive and emotional processes involved in mindset formation. This approach has the potential to strengthen empirical support for mindset theory and deepen insights into learners' responses to academic challenges.

Mindset intervention has become a prominent area of study as researchers explore strategies to promote the adoption of a growth mindset among learners. This intervention approach focuses on helping students understand the malleability of the brain and encouraging them to view challenges as opportunities for learning (Burnette et al., 2018; Campbell et al., 2021). Its increasing popularity is reflected in a growing number of published studies that assess its outcomes and practical implications (Blackwell et al., 2007; Paunesku et al., 2015; Yeager et al., 2019).

A variety of intervention designs have been implemented to cultivate growth mindset beliefs among students. Early approaches used peer mentoring as a foundation, where learners supported others within the same grade or age group (Lanvers, 2020). One such method, the pen pal orientation, connected students from different academic levels who exchanged letters discussing their learning experiences and encouraging mindset development (Aronson et al., 2002). An alternative approach modified this idea by using trained research assistants to act as mentors who guided students through learning difficulties and taught growth mindset concepts (Good et al., 2003). A modern variation of peer mentoring continues to involve older students providing support, but now includes instruction on language learning benefits, learning difficulties, and mindset theory (Lanvers, 2020). This method aims to promote self-efficacy, positive learning beliefs, and self-regulation (Lisberg & Woods, 2018).

In addition to peer support models, other interventions deliver growth mindset content through structured instruction. One such method is the mindset lecture, which introduces learners to the concept of brain malleability and provides reflective activities to enhance awareness and application of growth mindset principles (Choi, 2018; Quille & Bergin, 2020; Sahagun et al., 2021). Another instructional approach uses multimedia tools, including videos, infographics, and digital materials, to present mindset content. These materials help learners internalize concepts related to brain plasticity and encourage reflection through class discussions and writing tasks (Jamieson et al., 2018; Burgoyne et al., 2018; Schleider et al., 2019).

The use of short video interventions has been found to be particularly effective in changing mindset beliefs and improving mental well-being. For instance, Schleider and Weisz (2016) demonstrated that adolescents who engaged with infographics and audio-visual content developed stronger growth mindset beliefs and recovered from stress more quickly. Fray (2018) observed similar outcomes, noting that these methods required minimal resources and could be delivered efficiently. These interventions provided learners with concrete information about brain development and helped them reflect on their beliefs in meaningful ways.

An alternative design, referred to as mindset-embedded instruction, integrates mindset concepts directly into lesson content. However, findings from Calisto (2013) and Campbell et al. (2021) indicated that this approach has had limited success in significantly altering learners' mindset beliefs. These results suggest that while integration may enhance relevance, it requires careful planning to ensure that learners clearly understand the mindset concepts embedded in the lessons.

Despite the growing interest in mindset interventions, not all studies have reported strong results. Some research has found that mindset interventions produce weak or statistically insignificant changes in learners' beliefs (Bråten et al., 2017; Burgoyne et al., 2018). In response, scholars have proposed strategies to improve intervention effectiveness. Yeager et al. (2016) and Zhang (2022) recommended that interventions be clearly targeted, include specific learning objectives, and be sensitive to the learning context in which they are delivered.

Recent scholarship has emphasized the importance of contextually informed and well-structured mindset interventions. Burnette et al. (2022) suggested that designers of mindset interventions should move beyond academic outcomes and instead define broader learning goals, identify suitable learner groups, and tailor delivery methods to specific settings. Zhang (2022) further emphasized the role of

supportive environments, message customization, and learner engagement in ensuring the success of such interventions.

Recent research has begun to explore the application of mindset interventions to language speaking skills. Carrington (2022) successfully implemented a speaking course that incorporated mindset training through videos and mindset-based tasks. This course created a learning environment that encouraged learners to understand the process of growth and language learning. Similarly, Baynard-Montague and James (2023) reported that short video-based interventions improved participants' speaking performance. In a different context, Lou and Noels (2023) and Mardesich (2023) investigated how manipulated mindset beliefs affected migrants' perceptions of linguistic potential and program participation. Their findings showed that fixed mindsets were linked to contact avoidance and resistance to language program engagement, while growth mindsets were not associated with such tendencies.

Considering the benefits of multimedia mindset interventions and their impact on speaking outcomes, the present study adopted a video-based approach. Research has shown that these tools are time-efficient, require minimal resources, and effectively shift learners' beliefs. Drawing on these findings, the present study designed a video toolkit to support mindset development and improve students' beliefs and behaviors related to foreign language speaking.

Longitudinal studies offer valuable insights into how mindsets evolve over time, yet there remains limited consensus regarding their appropriate design and duration. A longitudinal approach can reveal patterns in mindset development and its effects on learning, providing both theoretical and pedagogical contributions to the field. However, researchers continue to debate what timeframe qualifies as longitudinal, with existing studies varying widely in duration (Khan, 2019). Some investigations span one month, while others extend to one year or longer, such as those conducted by Schroder et al. (2019) and Zhao et al. (2021). In addition to inconsistent definitions of duration, relatively few studies have measured learners' mindsets multiple times across extended periods.

Repeated assessments are necessary to examine how learners' beliefs persist, shift, or adapt in response to instruction and experience. Without multiple data points, researchers cannot determine whether mindset changes are temporary or sustained. Therefore, future studies should prioritize repeated measurement designs in order to investigate mindset as a dynamic construct. Measuring mindset at least twice during the study period can offer clearer insights into its role in shaping learners' cognitive and emotional development.

Qualitative approaches to mindset research remain limited, despite their potential to uncover deeper dimensions of learners' beliefs and experiences. Existing studies in this area are few, largely due to the implicit nature of the mindset construct, which poses challenges for observation and interpretation (Sun, 2019; Savvides & Bond, 2021). Researchers often find it difficult to access and articulate learners' implicit theories, making it necessary to develop research methods capable of capturing these internal perspectives. Consequently, there is a pressing need for methodologies that can effectively reveal and analyze the underlying structures of learners' belief systems (Bernecker & Job, 2019).

To address this gap, the present study adopts a qualitative approach that incorporates both semi-structured interviews and Q-methodology. Q-methodology has shown promise for exploring subjective viewpoints related to learners' mindsets. This approach enables researchers to investigate how individuals perceive and prioritize ideas about learning and ability (Kamal et al., 2014). Originally developed for medical research (Barbosa et al., 1998), Q-methodology has since been applied across the social sciences and humanities to capture complex belief systems (Parkins et al., 2015).

In applying Q-methodology to this study, the researcher follows a structured process based on established guidelines. According to Bartlett and DeWeese (2015), the first step involves developing a set of statements that reflect diverse perspectives related to mindset. These statements can be derived from literature reviews, interviews, or content such as online forums. The next step is refining and finalizing the Q-set, which may require iterative revisions and pilot testing. After the Q-set is prepared, a sample of participants is selected to perform the Q-sort, ranking the statements according to their beliefs or experiences. Participants then complete the Q-sort using a grid format that supports both forced choice and comparative judgment. Finally, researchers analyze the data using a combination of statistical and thematic approaches to identify patterns and meaning.

Q-methodology serves as an effective bridge between quantitative and qualitative research traditions. As Ramlo (2015) noted, it enables researchers to gather interpretable data that respects the complexity of individual perspectives while still producing reliable and replicable results. In the context of this study, the use of Q-methodology added insight that supported the survey and interview results. Through the Q-sort activity, participants revealed changes in how they view their speaking ability. This method helped identify how learners organized their beliefs when making choices about language learning. It also confirmed the positive shift toward a growth

mindset that emerged during the intervention and showed how students internalized new ways of thinking about foreign language speaking.

The current section showed the lack of alignment between core theoretical constructs and research design remains a critical weakness. Without methodological approaches that capture the layered and implicit nature of mindset, researchers risk drawing incomplete conclusions. These methodological concerns point toward the need for research that incorporates diverse methods and varied cultural and learner contexts. This will be explored in the following section.

2.4.3 Contextual Gaps

Contextual limitations in existing research highlight the need for further investigation into the broader system of domain-specific language mindset. Although recent studies have supported the domain-specific nature of language mindsets (Khajavy et al., 2021; Bai et al., 2020; Ozdemir & Papi, 2021), the majority of these studies have focused narrowly on specific domains such as reading or writing. Moreover, many of these investigations emphasize only affective aspects, such as enjoyment or anxiety, without integrating other essential components of the belief system. This has resulted in a lack of research that examines multiple variables within a single study.

There remains limited exploration of how additional mindset-related variables interact within domain-specific contexts. Variables such as self-regulation, goal orientations, effort beliefs, beliefs about failure and mistakes, and attribution have not yet been studied together within one framework. The absence of such integrated investigations restricts our understanding of how these interconnected components function collectively in shaping learners' beliefs and behaviors.

Recent findings suggest that social norms and contextual influences play a substantial role in shaping mindset beliefs. Lou and Li (2023) revealed that learners' mindset orientations can vary significantly depending on their cultural and social environments. While some studies have examined language mindset in the Thai context (Eurboonyanun et al., 2023; Krataytong & Saleemad, 2023; Mahapoonyanont et al., 2024), none have specifically investigated the foreign language speaking mindset of Thai undergraduate learners. This omission limits the applicability of existing research findings to this learner population.

To address this gap, the present study incorporates variables from the language-mindset meaning system proposed by Lou and Noels (2019). This approach allows for a more complete investigation of the speaking mindset in the Thai context by including multiple belief dimensions. Exploring these factors together can offer a

more meaningful interpretation of how Thai undergraduate learners perceive foreign language speaking, and how their beliefs are shaped by the interaction between individual and cultural influences. This research aims to extend the current understanding of domain-specific mindset by emphasizing speaking skills within a clearly defined sociocultural context.

This section emphasized the need to explore domain-specific mindset within authentic sociocultural settings. The limited attention to foreign language speaking mindset in Thai context shows that existing studies have not fully addressed how cultural, individual, and instructional factors interact. Recognizing these contextual influences prepares the review for the next section on pedagogical gaps.

2.4.4 Pedagogical Gaps

The current literature also reveals pedagogical gaps concerning the application of growth mindset principles in language instruction, particularly in the area of speaking.

While a number of studies have explored teaching strategies, curriculum development, and professional training, the research remains limited in its scope and specificity, especially within the Thai educational context.

In terms of instructional methods, prior research has proposed several ways to embed mindset principles into teaching practices. One study by Inchamnan and Chomsuan (2020) investigated the use of gamification to cultivate a growth mindset, finding that this method increased learners' motivation and engagement. Similarly, Nuntasri and Chaichomchuen (2020) introduced a project-based teaching approach designed to foster growth mindset development. Their approach consisted of four stages: inspiring students, assigning challenging tasks, emphasizing the value of effort, and promoting positive thinking through reflective activities. These methods offer useful frameworks for mindset-oriented pedagogy but require further examination in diverse learning contexts.

Curriculum design has also been examined in connection with mindset, although the number of studies remains limited. For example, Warunwutthi et al. (2022) implemented a counseling program for Chinese graduate students in Thailand. The program aimed to support learners' cognitive resilience in response to challenges. While the intervention showed positive results, limitations related to sample size, educational level, and setting suggest the need for broader application. Based on these findings, the authors recommended that Thai institutions consider incorporating mindset development strategies into their curriculum frameworks. Their recommendation is consistent with Sosik et al. (2017), who advocated for promoting a

growth mindset across all educational levels in Thailand to improve learner well-being and academic orientation.

Professional development for teachers and school administrators also represents a significant area of pedagogical research. Several studies have explored how educators' mindset beliefs influence their instructional choices and leadership practices. Masalee et al. (2021) conducted a large-scale study involving 460 school administrators in Thailand. The researchers proposed six core indicators of a growth mindset for administrators, including innovative thinking, openness to change, personal development, goal orientation, recognition of success, and strategic leadership. They suggested that the Ministry of Education integrate these indicators into administrative training programs to strengthen teacher and student development.

Efforts to foster a growth mindset among teachers have focused on coaching and reflective training. For example, Kawinkamolroj et al. (2015) introduced a coaching model designed to shift elementary school teachers toward a growth-oriented teaching mindset. The study showed improvements in instructional planning and teacher attitudes. In related research, Yokchoo (2018) emphasized the influence of teachers' beliefs about their own and their students' abilities on classroom practice. The study highlighted the need to help pre-service teachers view abilities as developable, as this perspective encourages instructional strategies that promote learner potential, motivation, and persistence.

Although several studies have offered practical insights into mindset-oriented pedagogy, research in the Thai context remains insufficient. Further investigation is necessary to understand how mindset-informed instruction can be integrated across educational levels and adapted to different student populations. By expanding pedagogical research on growth mindset implementation, educators and policymakers can better design strategies that improve teaching effectiveness and learner engagement in language education.

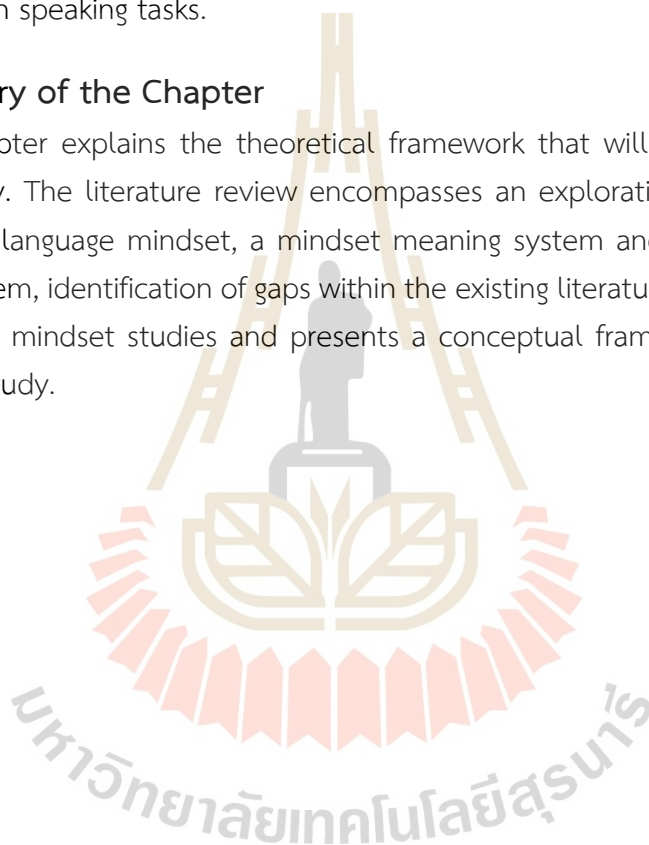
This section underscored the need to integrate growth mindset principles into curriculum, instruction, and professional development, particularly in Thailand. Section 2.4 reveals broader challenges in fully understanding and applying mindset theory. These findings lead to the next section which presents the conceptual framework for the present study.

Learners with differing levels of language proficiency and varying mindsets are expected to interpret these six learning variables in distinct ways. This study aims to investigate how learners perceive and apply these six variables within the specific context of speaking, and how these interpretations are shaped by their views of their own language proficiency. In addition, the study incorporates a mindset intervention

to promote the development of a growth-oriented language mindset. Through this intervention, the study seeks to better understand learners' speaking mindsets and explore how these beliefs may change over time. Apart from the promotion of growth-oriented belief, the mindset intervention in turn impacts learners' speaking performance. By integrating these components, the framework offers a clear foundation for the investigation and guides the direction of the study. It provides a systematic approach to examining the dynamic interaction between learners' mindset beliefs, their perceptions of proficiency, and their responses to learning-related experiences in speaking tasks.

2.6 Summary of the Chapter

This chapter explains the theoretical framework that will be employed in the present study. The literature review encompasses an exploration of the concept of mindset and language mindset, a mindset meaning system and a language mindset meaning system, identification of gaps within the existing literature concerning mindset and language mindset studies and presents a conceptual framework that will guide the current study.



CHAPTER 3

LITERATURE REVIEW

This chapter describes the methodology employed in the present study. It explains the research design, the characteristics of the participants, the research instruments, the research approach, the techniques applied for data analysis, as well as the findings from the pilot study.

3.1 Flow Chart of Methodology

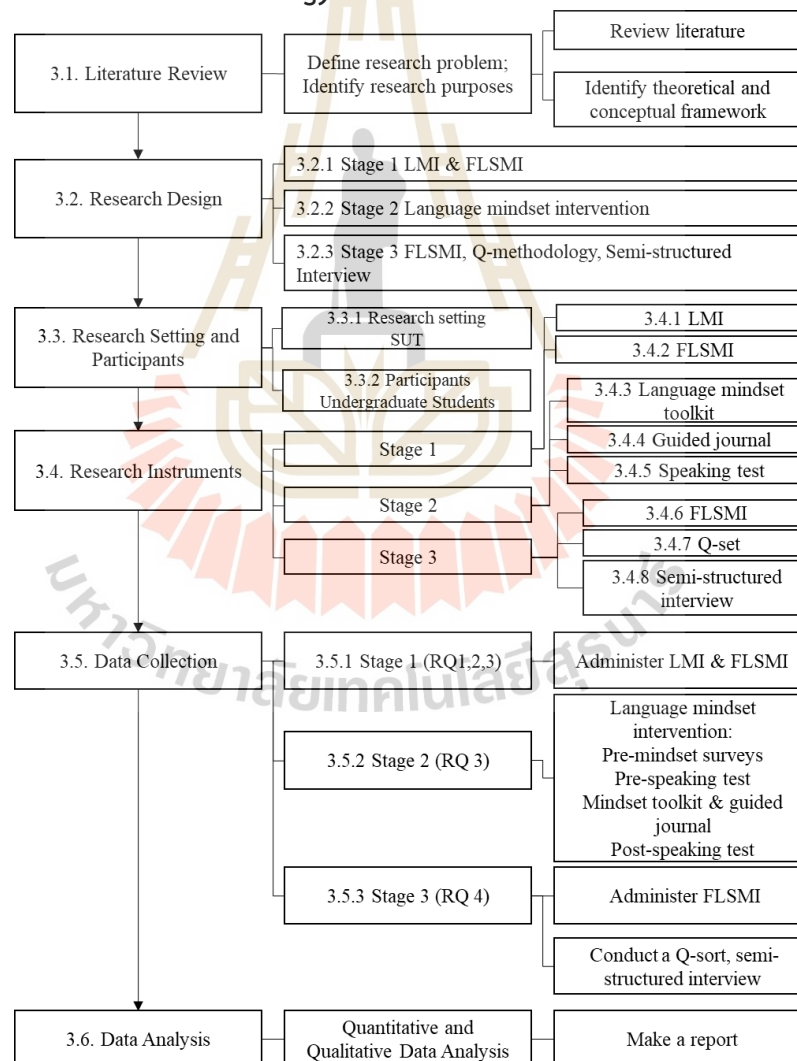


Figure 3.1 Flow Chart of Methodolog

Figure 3.1 presented an overview of the research methodology employed in this study. The diagram outlines the research process including literature review, research design, research setting and participants, instruments, data collection procedures, and data analysis. The figure illustrated how the study was structured across three main stages. This visual representation provided a clear roadmap of how the study was systematically conducted to address the research purposes.

3.2 Research Design

The aim of the current study is to investigate the language and foreign language speaking mindsets of Thai undergraduate students. In addition to exploring the mindsets, the study seeks to establish relationships among language mindset, foreign language speaking mindset, and speaking performance of Thai undergraduate students, as well as to examine the learning variables related to foreign language speaking mindsets of the undergraduate students. Finally, the study aims to examine the dynamic nature of the foreign language speaking mindset among Thai undergraduate students over time.

The study employed a mixed-methods research design that incorporates both quantitative and qualitative methodologies. With regard to the purposes and research questions of the study, the four aims and corresponding questions were pursued throughout three stages of the study. Table 3.1 presented the research design and showed the research purposes and research questions with the stages that corresponded to each question.

Table 3.1 Research Design

Research Purposes	Research Questions	Stages of the study
1. To investigate Thai undergraduate students' language mindset and foreign language speaking mindset.	1. What are the language mindset and foreign language speaking mindset of Thai undergraduate students?	Stage 1 Language Mindset and Foreign Language Speaking Mindset Surveys
2. To know the factors associated with foreign language speaking mindset of Thai undergraduate students.	2. What are the factors related to foreign language speaking mindset among Thai undergraduate students?	Stage 1 Language Mindset and Foreign Language Speaking Mindset Surveys
3. To determine the relationship between and among language mindset, foreign language speaking mindset, and speaking performance of Thai undergraduate students.	3. What are the relationships among language mindset, foreign language speaking mindset, and speaking performance of Thai undergraduate students?	Stage 2 Language Mindset Intervention
4. To understand the dynamic nature of foreign language speaking mindset of Thai undergraduate students over time.	4. Does foreign language speaking mindset among Thai undergraduate students change over time, and if so, what is the nature of this change?	Stage 2 Language Mindset Intervention Stage 3 Foreign Language Speaking Mindset Survey, Q-Methodology, and Semi-Structured Interview

Table 3.1 outlined how the study's purposes connect with the research questions and the methodological stages. Each stage was planned to address the specific aim of the study. The following section explains each stage of the study in detail.

3.2.1 Stage 1 Language Mindset and Foreign Language Speaking Mindset Surveys

The first stage used a quantitative approach to examine learners' language mindsets, foreign language speaking mindsets, and related learning variables. In the current study, the researcher used the data gathered from surveys to establish the linear correlations between language mindset and foreign language speaking mindset, as well as the connections between speaking performance and foreign language speaking mindset. Both the language mindset survey and the foreign language speaking mindset survey were distributed electronically via online (Google Form) surveys. The reason for implementing a survey is grounded in its suitability as a tool for assessing the language mindset and foreign language speaking mindset of undergraduate students. Additionally, the use of survey data enables the researcher to draw inferences (Lankshear & Knobel, 2004) regarding the language mindset, foreign language speaking mindset, and their connection with the learning variables that underpin the meaning-making process of undergraduate students. The survey results of this stage provided insights for answering research questions 1) What are the language mindset and foreign language speaking mindset of Thai undergraduate students? and 2) What are the factors related to foreign language speaking mindset among Thai undergraduate students?

3.2.2 Stage 2 Language Mindset Intervention

The second stage employed a language mindset intervention to explore the effects of a mindset intervention and related learning variables. The intervention was applied to achieve the following objectives: seek for the insight of a foreign language speaking mindset, identify the interplay between foreign language speaking mindsets and the learning variables of the undergraduate students, determine the relationship between the learning variables and foreign language speaking mindset, and investigate the dynamic nature of foreign language speaking mindset over time. At this stage, the pre-speaking test was carried out prior to the mindset intervention, and the post-speaking test was conducted subsequent to the conclusion of the mindset intervention.

These measurements were conducted to assess changes in mindset change before and after the intervention. The purpose of the speaking test is to assess the speaking performance of undergraduate students. This test enables the researcher to

both evaluate the speaking performance of undergraduate students and establish a connection between the learning trajectory of students' foreign language speaking skills and their mindset. The mindset toolkit was utilized as an instrument. By utilizing an intervention, the researcher can investigate the effects of mindset intervention on the language mindset and foreign language speaking mindset of undergraduate students in an English language classroom setting since conducting a true experimental design in a classroom setting can be impractical (Cohen et al., 2007), as it may be challenging to randomize the provision of a mindset intervention to specific groups of Thai undergraduate students given constraints of time and context. The guided journals were provided to students as a tool for reflecting on their understanding of mindsets and identifying potential applications of this knowledge to their foreign language speaking. The outcomes of this stage will provide insights for answering research questions 3) What are the relationships among language mindset, foreign language speaking mindset, and speaking performance of Thai undergraduate students?? and 4) Does foreign language speaking mindset among Thai undergraduate students change over time, and if so, what is the nature of this change?

3.2.3 Stage 3 Foreign Language Speaking Mindset Survey, Q-Methodology, and Semi-Structured Interview

The third stage applied a mixed-method to gain a deeper understanding of the evolution of foreign language speaking mindset. At this stage, the researcher administered the foreign language speaking mindset inventory, in addition to conducting semi-structured interviews. Prior to conducting the interview, the researcher utilized Q-methodology, a systematic approach that enables the researcher to discern the subjective viewpoints of the participants (Bartlett & DeWeese, 2015). Through the application of this approach, the researcher was able to identify shared perceptions among participants, as well as how they make meaning with respect to their mindset. The semi-structured interview afforded the researcher the opportunity to explore students' foreign language speaking mindset and gain insight into their perspective, thus enabling the development of relevant concepts (Lankshear & Knobel, 2004). Furthermore, the survey provided data for the comparative analysis of changes in students' mindset over time. The outcomes of this stage provided insights for answering research question 4) Does foreign language speaking mindset among Thai undergraduate students change over time, and if so, what is the nature of this change?

3.3 Research Setting and Participants

3.3.1 Research Setting

The study was conducted at Suranaree University of Technology, Nakhon Ratchasima, Thailand, which has a diverse undergraduate student population. However, it is essential to note that a significant proportion of the student body demonstrates low language proficiency, as indicated by their English Placement Test scores. This diversity offers unique research setting for exploring language-related issues. The data collection period was approximately eight weeks. The data were collected from the English for Communication course, which is designed with the objectives of enhancing students' communication abilities, fostering their speaking skills, and promoting their learning autonomy. Consequently, the researcher can ascertain that the course content aligns with the research objectives in terms of investigating the foreign language speaking mindset of students and the relationship between their mindset and speaking skills. Additionally, data collection took place in the university's co-working space, a dynamic location where students often engage in collaborative learning. The SUT co-working space offers two meeting rooms accommodating 10-15 individuals, equipped with tables, chairs, lighting, air-conditioning, and audio-visual equipment suitable for research activities. Additionally, the co-working space's convenient location within the university campus facilitates ease of access for undergraduate students.

3.3.2 Research Participants

The participants in the study were undergraduate students who enrolled in the university's fundamental English course (English for Communication I & II), as the main objectives of the course require active participation in classroom listening and speaking activities. Access to undergraduate students enrolled in the English for Communication I and II courses is advantageous to the study, as it enables investigation of students' foreign language speaking mindset and enhances the feasibility of the research. In addition, regarding Piaget's theory of cognitive development, students transitioning to tertiary education are believed to be in the formal operational stage of cognitive development, characterized by the use of abstract reasoning in understanding the world (Huitt & Hummel, 2003). Therefore, it may be assumed that the undergraduate students in these courses present a critical period for the development of students' growth mindset with respect to language learning and foreign language speaking.

3.3.3 Sampling Methods and Number of the Participants

3.3.3.1 Stage 1 Language Mindset and Foreign Language Speaking

Mindset Surveys

For the language mindset inventory and the foreign language speaking mindset inventory, participants were selected using a convenience sampling technique in the present study. There were 894 participants who participated in the survey.

Table 3.2 Demographic Information of the Participants in Stage 1

		N	Percentage
Gender	Male	346	38.70
	Female	530	59.30
	Rather not say	18	2.00
Year	Year 1	841	94.06
	Year 2	42	4.70
	Year 3	4	.45
	Year 4	3	.34
	Year 5	1	.11
	Year 6 up	3	.34
Major	Chemistry	17	1.90
	Mathematics	7	.78
	Biology	18	2.00
	Physics	7	.78
	Remote Sensing	2	.22
	Microbiology	10	1.12
	Sports Science	10	1.12
	Anatomy	1	.11
	Pharmacology	3	.34
	General Education	2	.22
	Information Technology	26	2.91
	Management Technology	3	.34
	Crop Production Technology	36	4.03
	Animal Production Technology	90	10.07
	Food Technology	9	1.01
	Public Health	64	7.16
	Occupational Health and Safety	3	.34
	Dentistry	2	.22
	Manufacturing Engineering	3	.34
	Agricultural Engineering	3	.34
	Transportation Engineering	2	.22
	Chemical Engineering	3	.34
	Mechanical Engineering	3	.34
	Ceramic Engineering	2	.22
	Polymer Engineering	2	.22

Table 3.2 Demographic Information of the Participants in Stage 1 (Cont.)

		N	Percentage
Gender	Male	346	38.70
	Electrical Engineering	2	.22
	Civil Engineering	7	.78
	Metallurgical Engineering	1	.11
	Environmental Engineering	2	.22
	Geotechnology	2	.22
	Electronic Engineering	3	.34
	Automotive Engineering	11	1.23
	Mechatronics	16	1.79
	Not specified (Engineering)	407	45.53
	Digital Communication Arts	52	5.82
	Other	63	7.05
Perceived language proficiency	Beginner	855	95.60
	Intermediate	25	2.80
	Advanced	14	1.60

The participant demographics reflected a diverse group in terms of gender, academic year, field of study, and self-reported English proficiency. Most participants were female (530 participants, 59.30%) and primarily first-year students (841 participants, 94.07%). Engineering was the most represented field, with 469 participants (52.46%) enrolled in engineering programs, followed by agricultural technology (135 participants, 15.11%) and science (69 participants, 7.72%). In terms of perceived English language proficiency, the majority of students (855 participants, 95.6%) identified themselves as beginners. A smaller group of 25 students (2.8%) reported intermediate proficiency, and only 14 students (1.6%) considered themselves advanced. The researcher asked for permission from the School of Foreign Languages, Suranaree University of Technology, to access students who enrolled in English for Communication courses. This request was made in writing and preceded all stages of data collection.

3.3.3.2 Stage 2 Language Mindset Intervention

The purposive sampling method was used in mindset intervention stage, given that the participants should be first-year undergraduate students enrolled in the English for Communication course. In line with the study's goals, it is beneficial for the participants to have undergone formal education in Thailand and be in the stage of developing formal operational thinking. Additionally, considering the constraints of accessibility, time, and budget, the most accessible group for the study consisted of the aforementioned students.

Table 3.3 Demographic Information of the Participants in Stage 2

		N
Language mindset intervention	All sessions	42
	Some sessions	6
Speaking test	Participate in speaking test and complete the survey	42
	Participate in speaking test	48
Guided journal	All sessions	37
	Some sessions	5

The number of participants in the Language Mindset Intervention was 42 participants. This number reflected the participants who fully completed two steps of the language mindset intervention, including the pre- and post-surveys and the pre- and post-speaking tests. The students were provided with the mindset video instruction during a warm-up period of the English for Communication class, and they received the guided journal as their classroom assignments. Initially, 42 participants voluntarily completed the journal. However, five participants were unable to complete all six journals. Therefore, only 37 journals were included in the dataset. Regarding the speaking test, there were 48 participants who had performed both the pre- and post-speaking test. However, there were 42 participants who volunteered to do the pre- and post- language mindset inventory and foreign language speaking mindset inventory. Hence, the six participants were eliminated from the data analysis for examining the relationship among language mindset, foreign language speaking mindset, and speaking performance. The researcher had taken measures to ensure that the mindset video instruction and guided journal will benefit the students in their language learning, based on prior empirical evidence related to mindset and second language learning interventions (Lanvers, 2020; Al-Murtadha, 2025).

3.3.3.3 Stage 3 Foreign Language Speaking Mindset Survey, Q-Methodology, and Semi-Structured Interview

The purposive sampling was used in this stage, whereby at least three participants were selected from various subgroups based on their mindsets. The participants were asked to volunteer for the semi-structured interview. There were three subgroups of the participants regarding foreign language speaking mindsets namely, strong fixed mindset, weak fixed and weak growth mindset, and strong growth mindset. The number of participants in this stage was 19 individuals.

Table 3.4 Demographic Information of the Participants in Stage 3

		N
Mindset	Strong fixed mindset	3
	Weak fixed and weak growth mindset	9
	Strong growth mindset	7

3.4 Research Instruments

This study employs six research instruments, namely, the Language Mindset Inventory (LMI), the Foreign Language Speaking Mindset Inventory (FLSMI), Language Mindset Toolkit, Guided Journals, Speaking Test, Q-set, and a semi-interview. During the first stage of the study, the LMI and FLSMI were administered. In the second stage, language mindset toolkit, guided journals were utilized, and speaking test was performed. In the third stage, the LMI and FLSMI were administered again, while the Q-set and a semi-interview were employed to collect subjective data from the participants. Detailed descriptions of each instrument are provided below.

a) Stage 1 Language Mindset and Foreign Language Speaking Mindset Surveys

3.4.1 Language Mindset Inventory (LMI)

Three items from the Language Mindset Inventory (Lou & Noels, 2019) were employed to measure the language mindset of Thai undergraduate students. The inventory comprises 18 items that use a 6-point rating scale, with responses ranging from 1 (Strongly Disagree) to 6 (Strongly Agree). The inventory encompasses three sections pertaining to three dimensions of second language acquisition: general language intelligence, second language aptitude, and critical/sensitive period hypothesis. Each of the three parts comprises six items and will be translated into Thai. The back translation method will serve as a documentation tool (Son, 2018) since the primary participants of the investigation are freshmen at Suranaree University of Technology.

Regarding the validity of the Language Mindset Inventory (LMI), previous research by Lou and Noels (2017) conducted a statistical analysis to establish the suitability of the instrument for assessing students' language mindset. To determine the internal structure of the inventory, Confirmatory Factor Analysis (CFA) was employed, testing various models with different numbers of factors, including a 1-factor, 2-factor, 3-factor, and 6-factor model. The results indicated that the 6-factor model exhibited the highest potential and was the most appropriate for discerning students' growth and fixed beliefs. Strong correlations were observed within the growth factors ($r = .88, .92, .94$), as well as within the fixed factors ($r = .73, .78, .89$), while weak

correlations were observed between the growth factors and fixed factors ($r = -.56, -.59, -.61, -.64, -.68, -.71$, and $-.77$). Subsequently, a Hierarchical Confirmatory Factor Analysis (HCFA) was conducted to further explore the internal structure of the Language Mindset Inventory (LMI). The results indicated that a 2nd-order model provided an acceptable fit and was appropriate for elucidating the covariation among the factors. Notably, a strong negative correlation was observed between the growth factor and the fixed factor ($r = -.78$), supporting the theoretical framework. To assess the validity of the LMI, Lou and Noels (2017) employed the known-groups technique, where they hypothesized that students who held beliefs in the malleability of their language abilities would be more likely to enroll in a language course. The results indicated that students who were enrolled in a language course exhibited stronger growth beliefs ($F(1,1583) = 4.26, p = .01, \eta^2 = .004$) compared to those who were not enrolled. This finding supports the notion that a stronger growth mindset is associated with a higher likelihood of pursuing language courses in the future, aligning with the underlying mindset meaning system that emphasizes the positive impact of a growth mindset on students' engagement within academic settings. Regarding the reliability assessment, Lou and Noels (2017) conducted a test-retest correlation analysis using data obtained from 117 students. The findings revealed a significant correlation of 0.71, indicating satisfactory reliability of the inventory. However, further investigations into the psychometric properties of the inventory were deemed necessary, as the assessment of its overall psychometric soundness remained inconclusive, prompting subsequent studies to delve deeper into this aspect.

In Study 2, one-way ANOVAs were conducted to provide evidence of the validity of the Language Mindset Inventory (LMI) based on test content. The analysis of the data revealed a consistent pattern wherein participants whose responses to the open-ended questions reflected stronger fixed beliefs obtained higher scores on the fixed beliefs subscale of the LMI. Similarly, participants whose responses indicated stronger growth beliefs received higher scores on the growth beliefs subscale of the LMI. Furthermore, the study investigated the relationships between language mindset and other variables, such as math ability, athletic performance, and general intelligence. The findings indicated that language mindset was distinct from these variables, demonstrating the specificity of the LMI in measuring language mindset.

In terms of interpreting the scores on the Language Mindset Inventory (LMI), participants are required to rate their level of agreement on six statements across three dimensions: general language intelligence, second language aptitude, and critical/sensitive period hypothesis. The rating scale ranges from 1 (Strongly Disagree)

to 6 (Strongly Agree). The scoring and interpretation of the LMI can be summarized as follows: For each dimension, participants who score between 12 and 18 points after responding to the fixed belief statements will be classified as endorsing a fixed language mindset. On the other hand, participants who score between 12 and 18 points after responding to the growth belief statements will be classified as endorsing a growth language mindset. This scoring and interpretation approach enables the identification of participants' alignment with either fixed or growth language mindsets across the specific dimensions of the LMI.

3.4.2 Foreign Language Speaking Mindset Inventory (FLSMI)

The 21-item Foreign Language Speaking Mindset Inventory (FLSMI) was developed drawing upon the theoretical framework of Lou and Noels' (2019) language mindset meaning-making system. The present model explicates the complicated interplay between language mindsets and the six learning variables that underpin the process of meaning-making. Thus, the Foreign Language Speaking Mindset Inventory endeavors to comprehensively assess the six key learning variables that encompass effort (2 items), attribution (3 items), achievement goals (4 items), failures/mistakes beliefs (2 items), self-regulatory tendency (3 items), and competence-based emotions (4 items). The inventory comprises two sections, namely, the General Information section and the Foreign Language Speaking Mindset Inventory section. During the development of the questionnaire items, a rigorous examination of secondary data and extensive review of relevant literature were conducted. The items contained in each subsection of the FLSMI are either adapted from or written based on the conceptual underpinnings of the language mindset meaning-making system (see Chapter 2). The development of the survey items was presented in Figure 3.2.

Figure 3.2 provided an overview of the development process of the survey instrument used in the study. It summarized the key steps from the initial literature review to the final item revision after the pilot study. The figure presented the theoretical sources and the corresponding item numbers for each construct. A more detailed explanation of the process is provided.

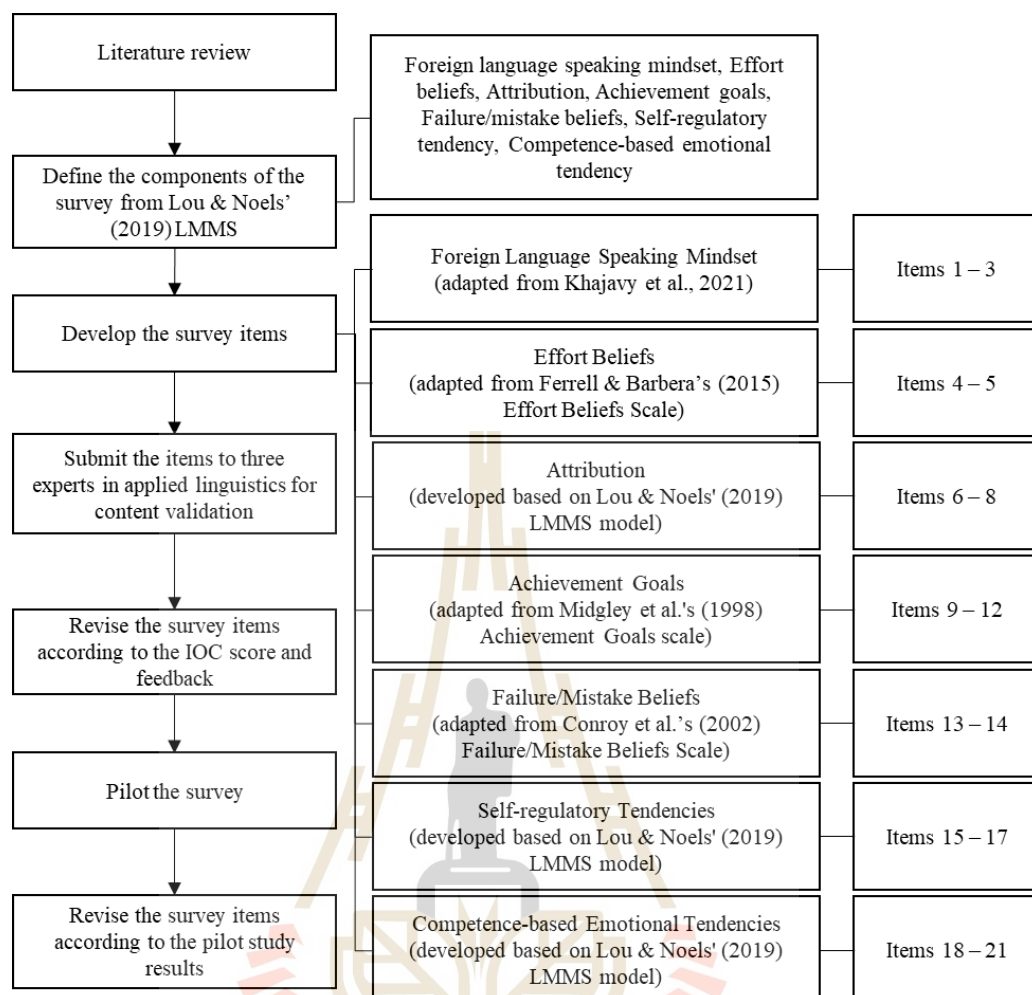


Figure 3.2 The Development Process of FLSMI

Initially, the Foreign Language Speaking Mindset Inventory (FLSMI) comprised a set of 59 statements. The first section of the Foreign Language Speaking Mindset Inventory comprised a total of five items, which used a combination of closed-ended and open-ended questions to elicit general information from participants. Specifically, the section aimed to obtain data on participants' gender, year of study, major of study, perceived level of language proficiency, and perceived level of proficiency in English speaking. The items were as follows:

1. What is your gender?
2. What is your current year of study?
3. What is your major of study?
4. What is your English language proficiency level according to the Common European Framework of Reference (CEFR)?
5. What is your perceived English language proficiency in speaking?

The second section of the inventory comprised a total of 55 items and used a 6-point rating scale with responses ranging from 1 (Strongly Disagree) to 6 (Strongly Agree). A 6-point rating scale was employed to align this instrument with the language mindset inventory which also used 6-point rating scale. Additionally, the survey scale without a neutral midpoint was intended to encourage the participants to indicate a clear position of agreement or disagreement. This section is comprised of seven subsections that aim to measure various constructs, as follows:

1) Foreign Language Speaking Mindset: This subsection consisted of six items, adapted from Khajavy et al.'s (2022) reading mindset items, designed to measure participants' mindset regarding their foreign language speaking abilities. According to the measurement, a growth foreign language speaking mindset refers to a belief that speaking ability is able to improve. A fixed foreign language speaking mindset refers to a belief that speaking ability is unable to improve. The items were as follows:

1. *No matter how intelligent I am, I can always improve my speaking.*
2. *The more I try to learn speaking skills, the better I become.*
3. *I can learn the necessary skills to speak English by doing enough practice.*
4. *As a language learner, I have limited aptitude to speak English and I cannot do anything to change and improve that.*
5. *Just a few people are capable of learning and improving their speaking and these people were born with this capacity and I am not one of them.*
6. *To be honest, I don't think I can improve my speaking skills.*

The rationale behind formulating the items to measure the foreign language speaking mindset based on Khajavy et al.'s (2022) study is rooted in their objective of conceptualizing a reading mindset. Additionally, it is crucial to explore whether mindset is a construct specific to certain domains. Consequently, employing these items may facilitate the differentiation between a general language mindset and a specific foreign language speaking mindset.

2) Effort: This subsection consisted of nine items, adapted from Ferrell and Barbera's (2015) Effort Beliefs Scale, designed to measure students' perceptions regarding the role of effort in their foreign language speaking learning process. Moreover, Item 7 and Item 12 aligned with the variables examined in Wilang's (2021) study on the mindset of the high school students. According to the measurement, the construct of effort refers to how students perceive the role of effort in their acquisition of foreign language speaking skills. Specifically, students exhibiting a growth speaking

mindset consider effort to be crucial in improving their speaking ability, believing that they can enhance their skills through hard work. In contrast, those with a fixed speaking mindset tend to believe that putting in effort will not lead to any significant improvement and may view doing so as an indication of their lack of natural talent in learning to speak English. The definition of these constructs is drawn from Lou and Noels' (2019) theoretical framework. The items were as follows:

7. *To tell the truth, when I work hard at improving my speaking, it makes me feel like I'm not very smart.*
8. *It doesn't matter how hard I try if I am not smart in language, I won't do well in speaking.*
9. *If I am not good at speaking, practicing hard won't make me good at it.*
10. *If speaking is hard for someone, it means that he or she probably won't be able to do really well at it.*
11. *If I'm not doing well at speaking, it's better to try something easier.*
12. *When speaking is hard, it just makes me want to practice more on it, not less.*
13. *If I don't practice and put in a lot of effort in speaking, I probably won't do well.*
14. *The harder I practice, the better I will be at speaking.*
15. *If a speaking task is hard, it means I'll probably learn a lot doing it.*

The reason for adapting the items from Ferrell and Barbera's (2015) study stems from their specific focus on investigating students' effort beliefs. Their study utilized items derived from the effort belief scales developed by Blackwell (2002), which have been employed to conceptualize the role of mindset in mediating students' transition from high school to tertiary education. Therefore, the items from Ferrell and Barbera appeared suitable for inclusion in the current study, given their alignment with the research objectives.

3) Attribution: This subsection consisted of six items that were developed based on Lou and Noels' (2019) Language Mindset Meaning-Making System model, aimed at measuring students' perceptions regarding the underlying factors that contribute to their foreign language speaking outcomes. According to the measurement, attribution refers to how students perceive the underlying causes of their success or failure in foreign language speaking. Students who demonstrate a growth speaking mindset tend to believe that their foreign language speaking outcomes are controllable and can be improved through effort. They may view mistakes or

failures as an indication of inadequate effort on their part. Conversely, students with a fixed speaking mindset tend to perceive their outcomes as beyond their control and believe that improvement in their speaking ability is solely dependent on natural talent. They may view mistakes or failures as a result of their lack of talent. These constructs are defined based on Lou and Noels' (2019) theoretical framework. The items were as follows:

16. *I can improve to speak English well because I have a natural talent in learning languages.*

17. *I may need a special talent to be able to speak English well.*

18. *I find it hard to speak English well because I am not good at learning languages.*

19. *I may be able to speak English well if I practice hard.*

20. *I may be able to speak English well if I put a lot of effort in speaking.*

21. *I may be able to speak English well if I get more time for practicing.*

4) Achievement Goals: This subsection consisted of 13 items adapted from Midgley et al.'s (1998) Achievement Goals scale, designed to measure students' goals in learning foreign language speaking. Moreover, Item 29 and Item 32 aligned with the variables examined in Wilang's (2021) study on the mindset of the high school students. According to the measurement, the achievement goals refer to the objectives that students aim to achieve in their foreign language speaking. Specifically, students with mastery goals strive to enhance and refine their foreign language speaking ability. Conversely, students with performance goals may seek to outperform their peers with high-perceived foreign language proficiency or avoid being perceived as incompetent in foreign language speaking due to the fear of negative judgment, particularly those with low-perceived foreign language proficiency. These definitions are in accordance with Lou and Noels' (2019) theoretical framework. The items were as follows:

22. *I like speaking task that I will learn from, even though I make a lot of mistakes.*

23. *An important reason I do my speaking task is because I like to learn new speaking skills.*

24. *I like speaking task best when it really makes me think.*

25. *An important reason I do my speaking task is because I want to get better at it.*

26. *I do my speaking task because I am interested in it.*

27. *I want to speak English better than the others in my classes.*

28. *I like to show my lecturers that I can speak English better than the other students in my classes.*
29. *Speaking English better than other students in my classes is important to me.*
30. *The reason I do speaking task in my English classes is so that others in the class won't think that I am dumb.*
31. *One reason I might not participate in speaking activities in my classes is to avoid looking dumb.*
32. *One of my main goals in my English classes is to avoid looking like I can't do my speaking task.*
33. *It's very important to me that I don't look stupid when I speak or when I try to speak English in my classes.*
34. *An important reason I do my speaking task is so I won't embarrass myself.*

5) Failures/Mistakes: This subsection consisted of five items that were adapted from Conroy et al.'s (2002) Failures/Mistakes scale, designed to measure students' perception of possible failures and mistakes in foreign language speaking. According to the measurement, failure/mistake refers to how students view their failure/mistake. Students with a growth L2 speaking mindset view failures and mistakes are controllable. Failures and mistakes in speaking are indications that they lack effort or lack appropriate learning strategies. Students with a fixed L2 speaking mindset view failures and mistakes are uncontrollable. Failures and mistakes in speaking are indications that they lack natural ability to learn language and to speak English. These definitions are in accordance with Lou and Noels' (2019) theoretical framework. The items were as follows:

35. *When I am failing in speaking, I am afraid that I might not have enough talent in language learning.*
36. *When I am failing in speaking English, I expect to be criticized by my friends and my English teachers.*
37. *When I am failing in speaking, it means that I have to put more effort to improve my speaking.*
38. *When I am failing in speaking English, I expect to get feedback to improve my speaking.*
39. *When I am failing in speaking, I worry about what others think about me.*

The Fear of Failure Inventory, as devised by Conroy et al. (2002), constituted a multidimensional instrument aimed at assessing fear of failure. The outcomes obtained through this measurement allowed for the characterization of participants' fear of failure based on their self-perceptions. Such self-estimation could be associated with attributional processes and the growth and fixed sub-system within the language mindset meaning-making system.

6) Self-regulatory Tendency: This subsection consisted of eight items that were formulated based on Lou and Noels' (2019) Language Mindset Meaning-making System model, aiming to measure students' self-regulation strategies when confronted with setbacks in foreign language speaking. Moreover, Item 41 aligned with the variables examined in Wilang's (2021) study on the mindset of the high school students. Drawing on Lou and Noels' (2019) theoretical framework, students with a growth speaking mindset tend to actively seek out better learning strategies and feedback to improve their foreign language speaking skills. In contrast, students with a fixed speaking mindset tend to avoid challenging speaking tasks that may lead to criticism, and they may perceive feedback as an indicator of their incompetence. The items were as follows:

- 40. *I don't have to seek for learning strategies, I am good at speaking.*
- 41. *I wouldn't like feedback on my speaking when I speak.*
- 42. *Practice speaking is a waste of time if I do not have the talent in speaking.*
- 43. *Speaking is something I can't do on my own.*
- 44. *I try to seek for learning strategies to improve my speaking.*
- 45. *I would like feedback on my speaking to make my speaking better.*
- 46. *Practice speaking on my own can make me get better at speaking.*
- 47. *Speaking is something I can do by myself.*

7) Competence-based Emotional Tendency: This subsection consisted of eight items, which are based on Lou and Noels' (2019) Language Mindset Meaning-making System model, designed to measure students' emotional responses when engaging in foreign language speaking. Based on Lou and Noels' (2019) theoretical framework, competence-based emotional tendency refers to the emotions that students tend to feel about their foreign language speaking ability. Students with a growth speaking mindset tend to experience less anxiety and more positive emotions when they have to speak a foreign language. Conversely, students with a fixed speaking mindset tend to experience more anxiety and fewer positive emotions when they have to speak in a foreign language. The items were as follows:

48. *I am afraid to speak English without preparation in my English classes.*
49. *I feel nervous when I have to speak English in front of my teacher and classmates.*
50. *I worry of making mistakes when I speak English.*
51. *I am afraid people will not understand me when I speak English.*
52. *I am eager to speak English in my English classes.*
53. *I feel comfortable when I speak English in front of my teacher and classmates.*
54. *I don't worry that I may make some mistakes when I speak English.*
55. *Even people don't understand when I speak, I am not afraid to speak English.*

3.4.2.1 The validation of Foreign Language Speaking Mindset Inventory

The foreign language speaking mindset inventory (FLSMI) has undergone a validation process prior to its administration to the participants of the study. Content validation was conducted through the use of Item Objective Congruence (IOC). The preliminary version of the inventory was submitted to three IOC committees on different occasions, resulting in a process that resembles an iterative validation process, involving multiple phases of validation (Sondergeld & Johnson, 2019).

The items were first submitted to the initial IOC committee and were subsequently revised based on feedback before being submitted to the remaining committees. Three experts with expertise in the applied linguistic field were tasked with evaluating the validity of the items. The IOC score of each item was then calculated using Lynn's (1986) criteria, which suggests that at least three experts are needed for content validation. Additionally, Brown (2005) recommended a cutoff value of greater than 0.50 as acceptable. A score of less than 0.50 indicated that the item required further adjustment.

In relation to the General Speaking Mindset subsection, the findings suggested that one item, specifically Item 6 (.33), should undergo further revision. Within the Effort subsection, the results indicated a need for revision of two items, namely Item 10 (.44) and Item 11 (.00). Regarding the Attribution subsection, the findings suggested that four items, namely Item 16 (.33), Item 19 (.00), Item 20 (.00), and Item 21 (.33), should be revised. Within the Speaking of Achievement Goals subsection, it was suggested that three items, namely Item 27 (.33), Item 28 (.33), and Item 34 (.33), undergo revision. Similarly, in the context of the Failure/Mistakes

subsection, the results suggested the revision of three items, namely Item 35 (.33), Item 36 (.33), and Item 38 (.33). Additionally, within the Self-regulatory Tendencies subsection, it was recommended that three items, namely Item 30 (.33), Item 41 (.33), and Item 44 (.33), be revised. Lastly, with regards to the Competence-based Emotional Tendencies subsection, the results indicated that one item, namely Item 45 (.33), should undergo further revision (see Appendix B).

Following the revisions based on the feedback from the three experts, the total number of items in the Foreign Language Speaking Mindset Inventory section was reduced to 42 (see Appendix B). All questionnaire items were translated into Thai, and the back-translation method was used as a documentation tool (Son, 2018). This was deemed necessary as the primary participants in the study were Thai freshmen at the university in the Northeastern Part of Thailand.

3.4.2.2 Reliability of the Foreign Language Speaking Mindset Inventory items

After the revision, the Foreign Language Speaking Mindset Inventory underwent a pilot study to test its reliability. The results of the pilot study indicated that the items were reliable. Cronbach's alpha coefficient for Foreign Language Speaking Mindset Inventory is 0.85, suggesting that the items have relatively high internal consistency (Cohen, Manion, & Morrison, 2007).

3.4.2.3 Correlation of the items in the Foreign Language Speaking Mindset Inventory

The average inter item correlation of the Foreign Language Speaking Mindset Inventory is 0.12 which suggested that the items have a low discrimination level. The items might be too redundant. To revise the survey, the item-rest correlation was performed to find the items that should be eliminated or adjusted. The results suggested that item 14, 20, 21, 22, 24, 30, 36, 37, 38, and 40 (10 items) should be eliminated or adjusted.

After removing the items that have value less than 0.2 from the analysis, The Cronbach's alpha coefficient for 32 items is 0.91. suggesting that the items have relatively high internal consistency (Cohen, Manion, & Morrison, 2007). The average interitem correlation of the speaking mindset inventory is 0.231 which suggested that the items have average discrimination level. Following the revision of the piloted items, the number of items remain 21. This decision was made based on the statistical analysis to eliminating the 21-item.

3.4.2.4 Technical aspects of the survey

The formats and language of the survey

In addition to completing the Foreign Language Speaking Mindset Inventory, participants in the pilot study also responded to questions regarding the technical aspects of the survey. The findings revealed that respondents found the instructions to be clear and the survey easy to navigate. Nevertheless, approximately half of the participants noted that there were too many items per page, which could potentially have affected their response quality. Nonetheless, the majority of respondents reported that the language used in the survey was straightforward and comprehensible.

Table 3.5 The Technical Aspects of the Speaking Mindset Inventory

Technical aspects	N	
	Yes	No
The instructions of the survey were clear.	33	
The survey was easy to navigate.	33	
Number of the items per one page is appropriate.	17	16
The language use in the survey is simple and easy to understand.	26	7

Additionally, there was an open-ended question asking respondents to indicate any difficulties they had in understanding the survey items. Respondents were given the option to either provide their own answer or choose from a list as follows.

- a) Use too much technical terminology
- b) The wording is ambiguous.
- c) The statement is too long.
- d) Th statement is what I have never considered before.

Table 3.6 The Difficulties in Understanding the Survey Items

Difficulties	N
a) Use too much technical terminology	2
b) The wording is ambiguous.	10
c) The statement is too long.	7
d) Th statement is what I have never considered before.	8

The respondents indicated that the survey items were difficult to comprehend due to the ambiguity of the wording, the length of the statements, and the use of technical terminology. Furthermore, they stated that many of these items were previously unconsidered. Therefore, in revising the items, emphasis should be

placed on simplifying the language, avoiding technical terminology, and shortening the statements. Additionally, a brief introduction to the concept of foreign language speaking mindset may be necessary to ensure participants are familiar with the topic.

The interpretation of the survey was derived from the previous studies that employ the six-rating scale survey in their studies (Daskalovska et al., 2023; Vate-U-Lan & Masouras, 2018). The table for the interpretation of the foreign language speaking mindset inventory was presented below.

Table 3.7 Interpretation of 6-Point Likert Scale

Scale	Weighted-mean interval	Interpretation
6	5.17-6.00	Strong growth
5	4.33-5.16	Moderate growth
4	3.49-4.32	Weak growth
3	2.67-3.50	Weak fixed
2	1.83-2.66	Moderate fixed
1	1.00-1.82	Strong fixed

b) Stage 2 Language Mindset Intervention

3.4.3 Language Mindset Toolkit

The language mindset toolkit consisted of six videos that focus on language mindset and the motivational factors that may be impacted by mindset. The researcher's utilization of videos as instructional materials in language mindset sessions can be attributed to several reasons. Firstly, videos serve as materials that enhance students' understanding of new concepts by facilitating their cognitive processing. Simultaneously, videos play a pivotal role in increasing students' engagement with the process of learning new concepts (Marshall, 2002; Cruse, 2006; Mecida et al., 2023). Additionally, these videos aid students in improving their memory retention of the subject matter they are studying, ultimately leading to enhancements in their overall performance (Kaboocha & Elyas, 2018; Chien, Huang, & Huang, 2020). The decision to employ videos as instructional materials was reinforced by the findings of the pilot study, which indicated that the concepts of language and foreign language speaking mindsets were novel to Thai undergraduate students. Prior research had already suggested that videos are well-suited materials for assisting in the comprehension of mindsets and are effective in promoting students' cognitive processing to facilitate their incorporation of these concepts into their language learning.

All videos were developed based on the Language Mindset Meaning-making System put forth by Lou and Noels (2019) (see Figure 2.2 in Chapter 2). Each video session is dedicated to one of the following six main topics.

Table 3.8 Video Sessions in Language Mindset Toolkit

Session	Topic
1	Mindset, Brain Power, and Language Learning (EP1: The Formula “Mindset and Brainpower”)
2	Language Mindset, Effort, and Attribution (EP2: Mind Matters)
3	Language Mindset and Achievement Goals (EP3: Unveiling the Secret)
4	Language Mindset and Interpretation of Failures and Mistakes (EP4: Embracing the Bumps)
5	Language Mindset, Self-regulation, and Emotions (EP5: Connecting the Dots)
6	Language Mindset and Speaking Skills (EP6: Unlock Your Potential)

The length of each video does not exceed six minutes. Segmenting the content into six videos could facilitate cognitive load management for students when engaging with the video lessons, allowing them to better concentrate on the topic and engage more effectively with the content (Brame, 2016). Moreover, research by Guo, Kim, and Rubin (2014) indicated that short videos (0-3 minutes) had the highest engagement rates, with a median engagement time of six minutes for video lessons.

Prior to implementation in the present study, the videos underwent a validation process to ensure their content and design validity. Two experts in educational psychology assessed the videos for their relevance, accuracy, and alignment with the study objectives. The validators' assessments of each statement were analyzed using the content validity index (CVI). The results indicated that the instrument was suitable for the study, with a CVI value of 1. Furthermore, four undergraduate students participated in evaluating the quality and accessibility of the videos, ensuring that they met the requisite standards for effective utilization. The results indicated that the students demonstrated 95% agreement regarding the content's potential to facilitate delivery and enhance understanding of the topics. Concerning relevance, the students exhibited 86.25% agreement that the toolkit was pertinent in aiding their comprehension of language and foreign language speaking mindset, enabled the transfer and generalization of learned content to their contexts, and was appropriate for the topic. The students demonstrated 90% agreement that the language employed in the video facilitated comprehension of the topic concerning language and foreign language speaking mindset and provided sufficient examples of language mindset and speaking mindset for the purpose of message delivery. This validation procedure aims to enhance the credibility and appropriateness of the videos as a research instrument in the study.

3.4.4 Guided Journals

The students received the guided journal in a paper format. The journals contained a prompt (Thai language) that encourages students to articulate their thoughts on their foreign language speaking mindset and how they can leverage their mindset to enhance their learning of foreign language speaking. The prompts for the guided journal during each mindset session encompassed inquiries related to the main ideas presented in the video, students' experiences relevant to the video content, reflections on past behaviors, and prospects for personal improvement.

3.4.5 Speaking Test

The evaluation of students' speaking performance involved both pre- and post-intervention assessments. These assessments aligned with the group conversation test used by the School of Foreign Languages at Suranaree University of Technology. The tests consisted of group conversations, with four participants in each group, and have a duration of seven minutes per group. The researcher employed the rubric scoring system provided by the School of Foreign Languages to assess students' speaking performance. The rubric scoring evaluates two key aspects of speaking performance: fluency and accuracy. The scoring system ranges from zero for students who make no speaking effort, characterized as "no performance at all," to 20 for students who demonstrate effective control of grammatical forms, maintain simple exchanges well, and use an appropriate range of vocabulary, described as "quite fluent and accurate."

Table 3.9 Rubric Scoring for Speaking Test

Range	Description
16–20	<u>Quite fluent and accurate</u> <ul style="list-style-type: none"> - Maintains simple exchanges quite well - Controls grammatical forms quite effectively - Uses an acceptable range of appropriate vocabulary
11–15	<u>Reasonably fluent and accurate</u> <ul style="list-style-type: none"> - Can maintain simple exchanges - Controls grammatical forms to some extent - Uses a somewhat limited range of appropriate vocabulary
6–10	<u>Somewhat fluent and accurate</u> <ul style="list-style-type: none"> - Cannot exchange ideas actively - Displays poor grammatical forms that do not hinder effective communication much - Uses a quite limited range of appropriate vocabulary
1–5	<u>Barely fluent and inaccurate</u> <ul style="list-style-type: none"> - Cannot exchange ideas well but nods his/her head in agreement evasively - Displays poor grammatical forms that hinder effective communication - Uses a very limited range of appropriate vocabulary/uses a lot of inappropriate vocabulary
0	<u>With no attempt</u> <ul style="list-style-type: none"> - No performance at all

To ensure the reliability of the scoring for both the pre- and post-intervention tests, two raters engaged in the evaluation process. The data from the speaking test were analyzed together with the data from the Language and Foreign Language Speaking Mindset Inventory utilizing correlations and triangulated with the survey data to assess both the impact of the mindset intervention and the dynamic nature of the foreign language speaking mindset among undergraduate students.

c) Stage 3 Foreign Language Speaking Mindset Survey, Q-Methodology, and Semi-Structured Interview

3.4.6 Foreign Language Speaking Mindset Inventory (FLSMI)

The Foreign Language Speaking Mindset Inventory (FLSMI) was utilized in this stage. In the initial stage of data collection, the survey was administered to participants. The Foreign Language Speaking Mindset Inventory comprises 21 items designed to gauge specific aspects of the foreign language speaking mindset. The participants utilized a 6-point rating scale, indicating their level of agreement on each item, ranging from 1 (Strongly Disagree) to 6 (Strongly Agree). All questionnaire items were translated into Thai. The back-translation method was employed as a documentation tool (Son, 2018). This translation process enhances the validity and reliability of the instruments when administered to Thai-speaking participants in this study.

3.4.7 Q-set

The term "Q-set" refers to the collection of statements that individuals use to express their points of view regarding a specific topic (Bartlett & DeWeese, 2015). As the study seeks to encompass the various facets of undergraduate students' foreign language speaking mindset, Q-methodology was employed. This choice is based on the utilization of Q-methodology to investigate the diverse patterns of thought among the participants (Akhtar-Danesh, 2018). By employing Q-methodology, the researcher will gain insight into the process by which participants rate each statement in real-time and engage in discussions about their perspectives while sorting, which distinguishes this approach from using a traditional survey (Zabala, Sandbrook, & Mukherjee, 2018). In this study, the 42-item of the Foreign Language Speaking Mindset Inventory (FLSMI) survey were adapted and employed as a Q-set for Q-methodology. As a foundational step in the development of the FLSMI, the researcher defined the constructs to be investigated in the present study. Subsequently, items were written to represent foreign language speaking mindset. To ensure the quality and validity of the FLSMI, the initial set of statements underwent a pilot phase with one undergraduate student and was subsequently revised based on feedback from subject matter experts and findings

from the pilot study. This iterative process aimed to refine the clarity and appropriateness of the items, enhancing the overall efficacy of the inventory. The FLSMI items, which capture various aspects of learners' foreign language speaking mindset, were repurposed to serve as the basis for the Q-set in the Q-methodology phase of the research. This approach ensures consistency in the constructs and statements explored throughout the study, enabling a seamless transition from the FLSMI survey to the Q-methodology procedure. By employing the same items as the foundation for both methodologies, the study seeks to comprehensively examine and triangulate learners' perspectives on foreign language speaking mindset, fostering a more robust and coherent understanding of this critical aspect of language learning.

3.4.8 Semi-structured Interview

The semi-structured interview served the purpose of acquiring insightful perspectives on the language mindset and foreign language speaking mindset among Thai undergraduate students. This method enabled the interviewer to predefine the topic while maintaining flexibility in the sequencing of questions (Cohen et al., 2007). These interview items aimed to examine the relationship between language mindset, foreign language speaking mindset, perceived language proficiency, and factors associated with foreign language speaking mindset. This exploration intends to yield a comprehensive understanding of the intricate and nuanced aspects of language mindset and foreign language speaking mindset among Thai undergraduate students. Additionally, the investigation into the dynamic nature of foreign language speaking mindset over time seeks to illuminate the evolving nature of mindset development during the academic journey. Each interview is expected to last approximately 15-30 minutes per group of students. During the interview, participants will be given the freedom to communicate in their preferred language. All interview questions are provided in Appendix E. The questions focused on participants' perceptions of language mindset and foreign language speaking mindset. Examples of the interview questions include: "Do you think someone can change their foreign language speaking ability?", "Please describe how you came to believe this," and "Have you always thought this way?"

The semi-structured interview questions were submitted to two experts in the field of applied linguistics to validate the content of the interview. The item objective congruence (IOC) score of all items were 0.50 and 1 which suggested that all items were suitable for the study. The comments regarding some items indicated minor revisions regarding the wording used in the interview and the preparation for the participants. The researchers revised the interview questions and conducted a pilot

study with one Thai graduate student and one Thai undergraduate student to ensure comprehension of the questions before implementing them in the study.

3.5 Data Collection

The data collection in the current study was organized into three stages, as outlined in the Design of the study section. Prior to conducting the research activities, the researcher submitted a proposal to the Institutional Review Board (IRB) for approval of the research and requested permission to collect data from the School of Foreign Languages, Suranaree University of Technology. Figure 3.3 below showed the data collection in this study.

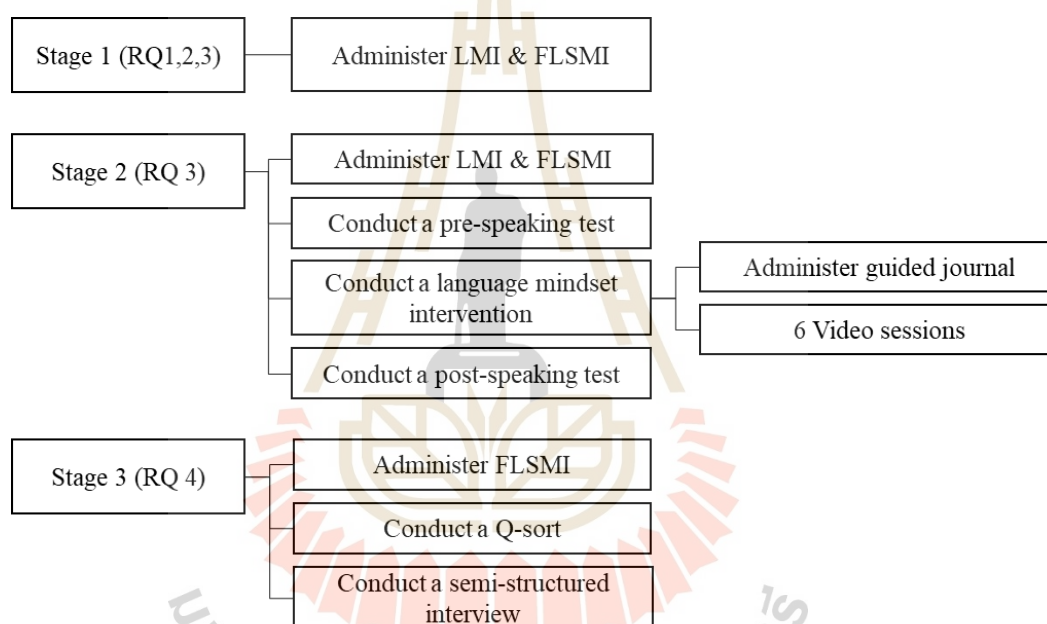


Figure 3.3 Data Collection

The above figure illustrated the data collection process across three stages of the study. In Stage 1, the mindset surveys were administered. Stage 2, involved a language mindset intervention. Finally, Stage 3 conducted the foreign language speaking mindset survey, Q-sort, and semi-structured interview. This figure provided a clear timeline and structure for how data were systematically gathered to address the research objectives.

3.5.1 Stage 1 Language Mindset Survey and Foreign Language Speaking Mindset Survey

The Language Mindset Inventory (LMI) and the Foreign Language Speaking Mindset Inventory (FLSMI) were administered to undergraduate students at Suranaree University of Technology both online and on-site. This stage took two weeks, and the

surveys took 15-20 minutes to complete. Prior to initiating the surveys, participants were required to complete the informed consent form, which is provided on the initial page of the survey. Participants received explicit information that all collected data will be treated with strict confidentiality and anonymity.

3.5.2 Stage 2 Language Mindset Intervention

The mindset intervention was implemented in the authentic classroom setting. At the beginning of the first session, students were asked to complete the Language Mindset Inventory (LMI) and Foreign Language Speaking Mindset Inventory (FLSMI). Following this, the pre-speaking test was performed. The students were randomly put into group of four. Then, the students got the topic for speaking and will have 7 minutes for preparation within their group. Then, the students performed the speaking test 7 minutes per group. In the following session, the mindset videos were provided to students in their English for Communication I course, with each video ranging in length from two to six minutes depending on the topic. The researcher participated fully as an instructor during the implementation of the mindset video instruction. Prior to watching each video, the students received a guided journal to take notes on the content. Following the video, the students engaged in a discussion related to the video content and how they can apply the knowledge of language mindset in their foreign language learning and speaking. The video instruction on mindset was conducted for approximately 10-15 minutes. After the class, students were assigned to complete a self-reflection in the guided journal and fill out the section evaluating their mindset, which was provided in guided journal. If the students attended the class late or if the students would like to watch the videos again, they were informed that they were able to access the link to watch the videos online, at their convenience.

The instructional videos on mindset consisted of six sessions, each focusing on a specific topic. After six sessions of the intervention, the post-speaking test was performed. The data collected from this stage were analyzed and triangulated with the data collected from surveys and interviews in Stages 1 and 3. Prior to the language mindset intervention, the research assistant informed the students about the study and the procedures they would follow throughout the intervention. Participants were made aware of their right to withdraw from the study at any point if they experienced discomfort, without any impact on their academic performance or scores. All data collected during the study would be treated with strict confidentiality and anonymity. In addition, informed consent was obtained from each participant before the intervention began.

3.5.3 Stage 3 Foreign Language Speaking Mindset Survey and Semi-structured Interview

In this stage, the researcher asked for volunteers from Stage 2 to participate in a follow-up interview regarding their mindset. The researcher administered the Foreign Language Speaking Mindset Inventory (FLSMI), which took approximately 15-20 minutes to complete. Subsequently, the Q-set was provided, and participants were required to reorder the 42 statements according to the degree of fidelity to their opinions, which took approximately 20 minutes. Following this, a semi-structured interview was conducted, which was audio recorded with the students. The interview took approximately 15-20 minutes. Prior to the Q-sort and semi-structured interview, the researcher obtained written consent from the students. Participants were informed that audio recordings would be made during both the follow-up interview after the Q-sort and the semi-structured interview. They were clearly informed of their right to withdraw from the interview at any time if they experienced discomfort, anxiety, or stress, without any negative effect on their academic performance.

3.6 Data Analysis

3.6.1 Research Question One: What are the language mindset and foreign language speaking mindset of Thai undergraduate students?

Statistical analysis was employed to analyze the data collected from the mindset surveys. Descriptive statistics, including frequency and mean, were utilized to summarize the collected data, which enabled the researcher to answer Research Question 1.

3.6.2 Research Question Two: What are the factors related to foreign language speaking mindset among Thai undergraduate students?

The study employed Exploratory Factor Analysis and Confirmatory Factor Analysis to examine the factors related to foreign language speaking mindset, and to answer Research Question 2.

3.6.3 Research Question Three: Is there a significant relationship between and among mindsets and speaking performance of Thai undergraduate students?

The correlation was utilized to determine the interrelationships among language mindset, foreign language speaking mindset, and perceived English language proficiency. The thematic analysis was employed to analyze guided journal data. These analyses aimed to address Research Question 3.

3.6.4 Research Question Four: Does the foreign language speaking mindset of Thai undergraduate students undergo any changes over time, and if so, what is the nature of such changes?

The Paired Sample T-Test was employed to examine changes of foreign language speaking mindset. The qualitative data obtained from the guided journals, Q-sort, and semi-structured interviews were analyzed using a thematic analysis approach in a deductive manner and were used to triangulate quantitative data from the surveys. This answered Research Question 4.

Table 3.10 Summary of the Data Analysis

RQs	Methods	Instruments	Analysis
1. What are the language mindset and foreign language speaking mindset of Thai undergraduate students?	Survey	LMI & FLSMI	Descriptive statistics
2. What are the factors related to foreign language speaking mindset among Thai undergraduate students?	Survey	FLSMI	EFA
3. What are the relationships among language mindset, foreign language speaking mindset, and speaking performance of Thai undergraduate students?	Survey, Mindset intervention, Speaking test	FLSMI, Language mindset toolkit, Guided journals, Pre- and post-speaking test	Correlation
4. Does foreign language speaking mindset among Thai undergraduate students change over time, and if so, what is the nature of this change?	Survey, Q-methodology, Semi-structured interview	FLSMI, Q-set, Semi-structured interview	Paired Sample T-Test, Card-sorting analysis, Thematic analysis

3.7 Implications from the Pilot Study

The pilot study suggested a framework for categorizing the undergraduate students' foreign language speaking mindset based on Lou & Noels' language mindset meaning-making system (2019).

Table 3.11 The Undergraduate Students' Foreign Language Speaking Mindset

Group/Aspects	Strong Fixed mindset	Weak fixed and Weak growth mindset	Strong Growth mindset
Foreign language speaking mindset	Students believe that their foreign language speaking is fixed.	Students believe that their foreign language speaking is malleable and recognize the influence of natural ability.	Students strongly believe that their foreign language speaking is malleable.
Effort	Students believe that natural ability is essential for improvement in their foreign language speaking.	The students hold the belief that effort is essential for improvement in their foreign language speaking ability. However, they also recognize the influence of natural ability on their proficiency in this area.	Students strongly believe that effort is essential for improvement in their foreign language speaking.
Attribution	Students attribute success in foreign language speaking primarily to natural ability.	Students attribute their success in foreign language speaking primarily to effort, they also acknowledge the role that natural ability may play in their foreign language speaking.	Students attribute success in foreign language speaking primarily to effort.
Achievement Goals	Students firmly set performance goals in learning foreign language speaking.	Students generally set learning goals for their learning of foreign language speaking. However, they may also set performance-avoidance goals.	Students firmly set learning goals in learning foreign language speaking.
Failures/Mistakes	Students firmly interpret failures and mistakes as evidence of insufficient natural ability in foreign language speaking.	Students tend to interpret failures and mistakes in their foreign language speaking ability as evidence of insufficient effort. They also acknowledge the potential influence of their natural abilities.	Students firmly interpret failures and mistakes as evidence of insufficient effort in foreign language speaking.
Self-regulatory tendencies	The students display a minimal inclination to self-regulate their learning of foreign language speaking, as demonstrated by a very low tendency to establish goals, monitor their progress, and adapt their strategies accordingly. Additionally, they maintain a negative attitude towards negative feedback and setbacks encountered during the process of learning foreign language speaking.	Students exhibit an inclination to regulate their own learning of foreign language speaking by setting goals, monitoring their progress, and making necessary adjustments. Additionally, they maintain a positive attitude towards negative feedback and setbacks encountered during the process of learning foreign language speaking.	Students exhibit a strong inclination to regulate their own learning of foreign language speaking by setting goals, monitoring their progress, and making necessary adjustments. Additionally, they maintain a positive attitude towards negative feedback and setbacks encountered during the process of learning foreign language speaking.
Competence-based emotional tendency	Students expose to more negative emotions in foreign language speaking.	Students expose to more positive emotions in foreign language speaking.	Students expose to more positive emotions in foreign language speaking.

3.8 Summary of the Chapter

This chapter explains the methodology that will be implemented in the present study. The research design encompasses a mixed-method approach, combining both quantitative and qualitative methods for data collection and analysis, which are illustrated in combination with the research instruments. Additionally, the outcomes and corresponding analyses from the pilot study are presented within the scope of the research design.



CHAPTER 4

RESULTS OF THE STUDY

This chapter reports the results of the study from stages 1 and 2 of data collection. This chapter is divided into four sections regarding the four research questions presented in Chapter One. The content of the results of the study were presented in Table 4.1 below.

Table 4.1 Results of the Study

Research question	Method	Topics
RQ1. What are the language mindset and foreign language speaking mindset of Thai undergraduate students?	Survey	4.1 What are the language mindset and foreign language speaking mindset of Thai undergraduate students?
RQ2. What are the factors related to foreign language speaking mindset among Thai undergraduate students?	Survey	4.2 What are the factors related to foreign language speaking mindset among Thai undergraduate students? 4.2.1 Results from the foreign language speaking mindset inventory
RQ3. Is there a significant relationship between and among mindsets and speaking performance of Thai undergraduate students?	Survey, Language mindset intervention, Speaking Test	4.3 Is there a significant relationship between and among mindsets and speaking performance of Thai undergraduate students? 4.3.1 Relationship of language mindset and foreign language speaking mindset (Stage 1) 4.3.2 The relationship between and among mindsets and speaking performance of Thai undergraduate students (Stage 2) 4.3.3 The influence of foreign language speaking mindset on speaking performance of Thai undergraduate students (Stage 2) 4.3.3.1 Language mindset and its role in foreign language learning and speaking 4.3.3.2 Effort and its role in foreign language learning and speaking 4.3.3.3 Attribution of failures in foreign language speaking 4.3.3.4 Achievement goals and behavior in the classroom 4.3.3.5 Interpretation of failures and mistakes and emotional experience 4.3.3.6 Self-regulatory tendencies and perception of feedback 4.3.3.7 Emotional experience related to foreign language speaking 4.3.3.8 Students' perception of factors influencing foreign language speaking

Table 4.1 Results of the Study (Cont.)

Research question	Method	Topics
RQ4. Does foreign language speaking mindset among Thai undergraduate students change over time, and if so, what is the nature of this change?	Survey, Q-methodology, Semi-structured interview	4.4 Does foreign language speaking mindset among Thai undergraduate students change over time, and if so, what is the nature of this change? 4.4.1 The results of the language mindset intervention 4.4.2 The results of the Q-methodology 4.4.3 The results from the semi-structured interview

4.1 What are the Language Mindset and Foreign Language Speaking Mindset of Thai Undergraduate Students?

To answer research question one, “What are the language mindset and foreign language speaking mindset of Thai undergraduate students?”, the data from the six-point rating scale survey (n=894) were analyzed utilizing Descriptive Statistics. The results are presented in Table 4.1 and Table 4.3. The interpretation of the scale is derived from previous studies that applied a six-point rating scale in the survey (Daskalovska et al., 2023; Vate-U-Lan & Masouras, 2018), as shown in Table 4.2.

Table 4.2 Language Mindset of Thai Undergraduate Students

Language Mindset Inventory	M	S.D.	Level
1. No matter how much language intelligence you have, you can always improve it quite a bit.	5.13	1.100	MG
2. You can't change how capable you are at learning new languages.*	4.88	1.346	MG
3. No matter how old you are, you can always improve your ability to learn new languages.	5.30	.980	SG
Total	5.10	0.85	MG

The items with asterisk were performed after reverse scoring.

MG=Moderate growth, WG=Weak growth, WF=Weak fixed, and MF=Moderate fixed

Thai undergraduate students exhibited a belief that they can continuously enhance their language ability (Item 1 = 5.13). There is a prevalent belief that their ability to learn new languages is reliant on effort and practice (Item 2 = 4.88). The results indicated that Thai undergraduate students express strong confidence in their ability to improve their language skills irrespective of their age (Item 3 = 5.30). To sum up, the results revealed that Thai undergraduate students adopt a belief that their language ability can develop through effort and practice.

Regarding foreign language speaking mindset, the results are as follows.

Table 4.3 Foreign Language Speaking Mindset of Thai Undergraduate Students

Dimension of the items	Foreign Language Speaking Mindset Inventory	M	S.D.	Level
Speaking mindset	1. As a language learner, I have limited ability to speak a foreign language and can't change it.*	4.50	1.25	MG
	2. Only a few people can learn and get better at speaking a foreign language, and they were born with this ability. I'm not one of them.*	4.72	1.41	MG
	3. To be honest, I don't think I can improve my ability to speak a foreign language.*	5.02	1.21	MG
Effort	4. The harder I practice, the better I will be at speaking a foreign language.	5.02	1.15	MG
	5. To tell the truth, when I try hard to improve my foreign language speaking, it makes me feel not very smart.*	4.27	1.49	WG
Attribution	6. I think I can improve to speak a foreign language well because of hard work.	4.70	1.21	MG
	7. I may need a special talent to speak a foreign language well.*	3.22	1.42	WF
	8. I find it hard to speak a foreign language well because I am not good at languages.*	3.20	1.52	WF
Achievement goals	9. I participate in foreign language speaking activities because I enjoy learning new speaking skills.	3.78	1.31	WG
	10. I like foreign language speaking activities that challenge me.	3.32	1.38	WF
	11. I participate in foreign language speaking activities to improve my skills.	3.73	1.32	WG
	12. I might not participate in a foreign language speaking activity to avoid looking foolish when speaking.*	3.97	1.50	WG
Failures and mistakes	13. When I am failing in speaking a foreign language, it means that I don't have enough talent in language learning.*	4.38	1.45	MG
	14. When I am failing in speaking a foreign language, it means that it is fruitless to practice speaking.*	4.73	1.27	MG
Self-regulatory tendencies	15. When I couldn't do a difficult foreign language speaking task, it probably means that the task is beyond my level.*	3.59	1.46	WG
	16. I don't like corrective feedback and criticisms because it suggests that I am not good at speaking a foreign language.*	4.12	1.53	WG
	17. Even if I don't have talent in speaking a foreign language, I try to seek strategies to practice speaking.	4.76	1.13	MG
Competence-based emotional tendencies	18. I am afraid to speak in my foreign language classes.*	3.26	1.57	WF
	19. I feel nervous when I have to speak a foreign language in front of my teacher and classmates.*	2.66	1.45	MF
	20. I worry of making mistakes when I speak a foreign language.*	2.68	1.43	WF
	21. I am afraid people will not understand me when I speak a foreign language.*	2.56	1.35	MF
Total		3.91	.72	WG

The items with asterisk were performed after reverse scoring.

MG=Moderate growth, WG=Weak growth, WF=Weak fixed, and MF=Moderate fixed

The results showed that Thai undergraduate students have confidence that they can improve their foreign language speaking ability (Item 3 = 5.02). The students believe that they can learn and improve their foreign language speaking skills through effort and practice (Item 2 = 4.72). Moreover, Thai undergraduate students see their potential in developing their ability to speak a foreign language (Item 1 = 4.50).

Regarding Items 4-5, Thai undergraduate students agreed that practice leads to improvement in their foreign language speaking ability (Item 4 = 5.02). Additionally, they tend to sense the capability when they put in effort to practice their foreign language speaking (Item 5 = 4.27).

Regarding Items 6-8, the results showed that students view effort allocation as a key to attain better foreign language speaking ability (Item 6 = 4.70). Thai undergraduate students slightly agreed that they find it hard to speak English well because they are not putting enough effort (Item 7 = 3.22). Thai undergraduate students also viewed that insufficient effort allocation might not be the only factor that hinders their foreign language speaking (Item 8 = 3.20).

Regarding Items 9-12, the results suggested that Thai undergraduate students slightly agree to participate in foreign language speaking activities (Item 12 = 3.98). They slightly agree that they enjoy the experience of acquiring new speaking skills (Item 9 = 3.78). Their participation in foreign language speaking activities is coming from the purpose of improving their speaking skills (Item 11 = 3.73). However, there were some disagreements on the preference of challenging foreign language speaking tasks (Item 10 = 3.32).

Regarding Items 13-14, Thai undergraduate students agreed that failures and mistakes are not an indication that they lack talent in learning (Item 13 = 4.38). They viewed that practice could help them tackle failures and mistakes in learning a foreign language speaking (Item 14 = 4.73).

Regarding Items 15-17, Thai undergraduate students slightly agreed that they would try to seek strategies to practice speaking (Item 17 = 4.76). In addition, they appreciate corrective feedback and criticisms regarding their speaking performance (Item 16 = 4.12). The results also showed the students slightly agree that the difficulty of foreign language speaking tasks might come from the level of the task (Item 15 = 3.59).

Regarding Items 18-21, the results suggested that Thai undergraduate students tend to experience negative emotions when they participate in foreign language speaking activities in classroom (Item 18 = 3.26; Item 19 = 2.66; Item 20 = 2.68; Item 21 = 2.56).

The results underscored that Thai undergraduate students adopt a growth foreign language speaking mindset. They believe that constructive and proactive learning strategies could help them master their foreign language speaking. However, the results revealed a high level of negative emotions when the students have to participate in foreign language speaking activities in the classroom.

4.2 What are the Factors Related to Foreign Language Speaking Mindset Among Thai Undergraduate Students

4.2.1 Results from the Foreign Language Speaking Mindset Inventory

To answer research question two, “What are the factors related to foreign language speaking mindset among Thai undergraduate students”, the data from the six-point rating scale survey (n=894) were analyzed utilizing Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA).

4.2.1.1 Results of Exploratory Factor Analysis

The Exploratory Factor Analysis (EFA) was performed using SPSS Version 29.0.2.0. Initially, the reliability of the FLSMI (21 items) was assessed at .868, indicating a high level of reliability for the survey instrument. The average inter-item correlations for the items of the Foreign Language Speaking Mindset Inventory (FLSMI) indicated a value of .242, falling within the range of .20 to .40. This suggested that the items of the FLSMI have sufficient uniqueness (Piedmont, 2014). However, upon closer examination of the inter-item correlations for Item 7, as well as the total-item correlations for Item 7 (-2.68) and Item 15 (-.457), it is apparent that these two items have consistently negative correlations and low total-item correlations. Based on the results, it is appropriate to consider deleting these two items from the scale. As a result of this adjustment, the reliability of the survey increased to 0.91.

Prior to performing EFA, the initial examination was performed. The results were presented in Table 4.4.

Table 4.4 KMO and Bartlett’s Test of FLSMI 16 Items

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.905
Bartlett's Test of Sphericity	Approx. Chi-Square	7109.279
	df	120
	Sig.	<.001

A Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was equal to .905. Bartlett’s test of sphericity was significant ($p < 0.001$). The results indicated that

the data were adequate for proceeding with EFA. The Cumulative Total Variance Explained for 16 items, three factors were 62.04%, suggesting that three factors could explain 62.04% of the variance. Moreover, three factors exhibited Eigenvalues greater than 1. The scree plot of the extracted components is presented in Figure 4.1.

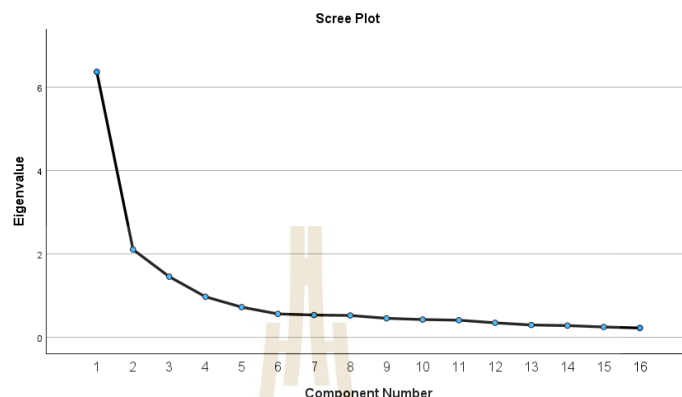


Figure 4.1 Scree Plot of Component Extraction

The factor analysis of 16 items was performed utilizing principal component analysis. The rotation method is Varimax with Kaiser Normalization. The Rotation converged in 8 iterations. The results of the extraction are presented in Table 4.5.

Table 4.5 Rotated Component Matrix and Communalities

Items	EFA			Communalities
	Factor 1	Factor 2	Factor 3	
Item 20	.836			.745
Item 19	.833			.737
Item 18	.735			.683
Item 21	.732			.576
Item 8	.478			.488
Item 9		.798		.742
Item 11		.793		.732
Item 10		.753		.752
Item 17		.631		.513
Item 4		.616		.569
Item 6		.602		.515
Item 14			.784	.661
Item 13			.747	.661
Item 5			.670	.561
Item 16			.607	.461
Item 12			.498	.529
Eigenvalue	6.360	2.108	1.458	
% of Variance	39.752	13.176	9.112	
Cumulative %		62.040		

Extraction Method: Principal Component Analysis.

According to the results, Factor one 'Emotional Outcomes of Attribution' consisted of five Items: Item 20 (.836), 19 (.833), 18 (.735), 21 (.732), and 8 (.478). This component was entitled "Emotions arising from self-attribution." When considering from the items' factor loading from Table 4.7 and Items' means from Table 4.3, the results suggested that Factor one highlighted the negative emotions related to foreign language speaking. Thai undergraduate students experience high level of negative emotion while participating in foreign language speaking activities in the classroom (Item 18, 19, 20, 21). This could be the result of students' self-attribution about their language ability (Item 8).

Factor two 'Motivational Process-Oriented Goals' consisted of six items: Item 9 (.798), 11 (.793), 10 (.753), 17 (.631), 4 (.616), and 6 (.602). When considering from the items' factor loading and Items' mean, the results suggested that the students' positive attitudes towards participating in foreign language speaking activities primarily driven by learning goals and beliefs in the efficacy of effort. They slightly agreed that they engage in these activities because they enjoy learning new speaking skills and seek to improve their existing skills. Additionally, they expressed agreement with the notion that even without inherent talent, they actively seek strategies to practice speaking, indicating a proactive approach to skill development.

Factor three 'Proactive Responses in Failure Situations' consisted of five items: Item 14 (.784), 13 (.747), 5 (.670), 16 (.607), 12 (.498). When considering from the items' factor loading and Items' mean, the results suggested that Thai undergraduate students employ constructive approach towards challenges and learning in foreign language speaking. They agreed that encountering difficulties in speaking a foreign language signifies the need for increased practice rather than a lack of talent. Moreover, they believe that the exertion of effort enhances their sense of capability, indicating a positive correlation between effort and self-efficacy. Additionally, they express a slight agreement with the value of corrective feedback and criticism. This showed that Thai undergraduate students recognize the role of feedback and criticism in skill improvement. Furthermore, their willingness to engage in FL speaking activities despite potential discomfort underscores their understanding of the learning process and their commitment to learning and improvement.

4.3 What are the relationships among language mindset, foreign language speaking mindset, and speaking performance of Thai undergraduate students?

To answer research question three, “Is there a significant relationship between and among mindsets and speaking performance of Thai undergraduate students?”, the Spearman’s rho correlation was performed to identify the relationship between language mindset and foreign language speaking mindset from the survey with 894 participants, and the relationship among mindsets and speaking performance of Thai undergraduate students from the results of language mindset intervention of 42 participants. The results were presented below.

4.3.1 Relationship of Language Mindset and Foreign Language Speaking Mindset (Stage 1)

Prior to conducting the correlation analysis, the assumption of normality was examined. The results of the test of normality were presented in Table 4.6.

Table 4.6 Test of Normality (Stage 1)

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Language Mindset Inventory (LMI)	.163	894	.000	.892	894	.000
Foreign Language Speaking Mindset Inventory (FLSMI)	.128	894	.000	.922	894	.000

a. Lilliefors Significance Correction

The results showed that the Kolmogorov-Smirnov and Shapiro-Wilk tests indicated statistical deviations from normality for the surveys ($p < .05$). Given the violation, Spearman’s rho correlation was employed to examine the relationships between variables. The results of Spearman’s rho correlation were presented in Table 4.7 below.

Table 4.7 Relationship of Language Mindset and Foreign Language Speaking Mindset

Measure		1	2
1. Language Mindset	Spearman's rho	—	
	p-value	—	
2. Foreign Language Speaking Mindset	Spearman's rho	.487**	—
	p-value	<.001	—

** Correlation is significant at the 0.01 level (2-tailed).

Spearman's rho result was consistent with Pearson Correlation (See in Appendix F). The results suggested that language mindset and foreign language speaking mindset were found to be moderately positively correlated, $r(892) = .49, p = <.001$. The results suggested that Thai undergraduate students who adopted a growth language mindset tended to adopt a growth foreign language speaking mindset.

4.3.2 The Relationship Between and Among Mindsets and Speaking Performance of Thai Undergraduate Students (Stage 2)

Prior to conducting the correlation analysis, the assumption of normality was examined. The results were presented in Table 4.8.

Table 4.8 Test of Normality (Stage 2)

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
LMI	.193	42	.000	.852	42	.000
FLSMI	.099	42	.200*	.983	42	.786
SP	.212	42	.000	.922	42	.007

a. Lilliefors Significance Correction

The Shapiro-Wilk test results showed that language mindset and speaking performance significantly deviated from normality ($p < .05$), suggesting non-normal distributions. However, foreign language speaking mindset did not significantly deviate from normality, suggesting that they were normally distributed. Given that several variables significantly deviated from normality based on Shapiro-Wilk test, Spearman's rho correlation was used to examine the relationship among language mindset, foreign language speaking mindset, and speaking performance of Thai undergraduate students.

The interrater reliability of pre- and post- speaking score were .93 and .97 which suggested that the speaking score were reliable. The descriptive statistic of three variables were presented in Table 4.9. The relationships of these variables were presented in Table 4.10.

Table 4.9 The Descriptive Statistic of the Language Mindset, Foreign Language Speaking Mindset, and Foreign Language Speaking Performance

	M	S.D.
Speaking Performance (SP)	12.93	1.31
Language Mindset (LM)	5.31	.71
Foreign Language Speaking Mindset (FLSM)	4.98	.87
Emotional Outcomes of Attribution (EOA)	3.10	.98
Motivational Process-Oriented Goals (MPOG)	4.65	.64
Proactive Responses in Failure Situations (PRFS)	4.57	.77

Table 4.10 The Relationship of the Language Mindset, Foreign Language Speaking Mindset, and Foreign Language Speaking Performance

Measure			1	2	3	4	5
1. LM	Spearman's rho		—				
	p-value		—				
2. FLSM	Spearman's rho		.620**	—			
	p-value		.000	—			
3. EOA	Spearman's rho		.156	.305*	—		
	p-value		.322	.049	—		
4. MPOG	Spearman's rho		.316*	.310*	.147	—	
	p-value		.042	.046	.352	—	
5. PRFS	Spearman's rho		.405**	.356*	.426**	.338*	—
	p-value		.008	.021	.005	.028	—
6. SP	Spearman's rho		-.038	.023	.254	-.138	.132
	p-value		.812	.885	.105	.383	.405

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The results were consistent with the results of the survey from Stage 1 that language mindset and foreign language speaking mindset were moderately positively correlated, $r(40) = .62$, $p = <.001$. Moreover, language mindset was positively correlated with motivational process-oriented goals ($r(40) = .32$, $p = 0.009$), and foreign language speaking mindset ($r(40) = .35$, $p = 0.042$) and proactive responses in failure situations ($r(40) = .41$, $p = 0.008$). However, language mindset and foreign language speaking performance after the language mindset intervention were found to be weakly negatively correlated, $r(40) = -.04$, $p = .812$. Foreign language speaking mindset and foreign language speaking performance after the language mindset intervention were found to be weakly positively correlated, $r(40) = .02$, $p = 0.885$.

This implied that the participants who adopt a growth language mindset tend to adopt a growth foreign language speaking mindset. A growth language mindset was associated with mastery goal-orientation and adaptive behavior in failure situation. However, there was almost no linear relationship between speaking performance and language mindset. There was no strong evidence to suggest a relationship between language mindset and speaking performance after the intervention. Additionally, there was no strong evidence to suggest a relationship between speaking performance and foreign language speaking mindset.

Although there was minimal relationship between mindset and speaking performance, students who adopted a growth language mindset and a growth foreign

language speaking mindset were more likely to employ proactive responses when encountering failures and mistakes.

4.3.3 The Influence of Foreign Language Speaking Mindset on Speaking Performance of Thai Undergraduate Students (Stage 2)

After the intervention, guided journals were administered to allow the students to reflect on what they had learned from the video session. Data from guided journals were analyzed to gain insight into the relationship between mindset and the foreign language speaking performance of Thai undergraduate students. The data were analyzed using thematic analysis following the guidelines of Bruan and Clarke (2006). The analysis was performed for both deduction and induction. Lou and Noels' (2019) language mindset meaning-making system framework was employed with the deduction method. The data analysis elicited eight themes from the guided journals. All themes were presented on Table 4.11 below.

Table 4.11 Themes Derived from Guided Journals

Themes
1. Language Mindset and Its Role on Foreign Language Learning and Speaking
2. Effort and Its Role in Foreign Language Learning and Speaking
3. Attribution of Failures in Foreign Language Speaking
4. Achievement Goals and Behavior in the Classroom
5. Interpretation of Failures and Mistakes and Emotional Experience
6. Self-regulatory tendencies and Perception of Feedback
7. Emotional Experience related to Foreign Language Speaking
8. Students' Perception of Factors Influencing Foreign Language Speaking

4.3.3.1 Language Mindset and Its Role in Foreign Language Learning and Speaking

According to their responses, most of the participants perceived that they had a fixed ability in language learning, whereas few participants perceived that their language learning abilities were malleable. The factors that contributed to the perception of fixed language-learning abilities were categorized into four groups: speaking partners/interlocutors, emotions, language-learning setbacks, and linguistic challenges. Various learning strategies had been observed based on the categorization of mindsets.

After the first session of the language mindset intervention, the participants reflected on their language mindset and redefined it. Among the 37 participants, many of them perceived themselves as having a growth language mindset,

few of them perceived that they adopted a fixed language mindset, and three stated that they adopted both language mindset.

The reflections on guided journals suggested the characteristics of the students who categorized themselves as having a growth language mindset included valuing effort and practice, belief in their potential to learn, and embracing challenges:

“I think I have growth mindset because I don't limit my abilities and believe that I can master foreign language. I think that to learn is to put on effort in practicing. So that we will be able to speak and write a foreign language” (GJ15).

The characteristics of the students who categorized themselves as having a fixed language mindset included avoiding difficulties, attributing difficulties in language learning to their talent, and negative emotions: “I am not confident in myself and I pressure myself a lot so sometimes I get worried a lot when I learn and speak a foreign language” (GJ8).

The results pointed out that the characteristics of the students who categorized themselves as having both language mindsets were attributed to difficulties in language learning due to their talent and valuing effort:

“Although one may adopt a fixed mindset, one also can adopt growth mindset. Although I am not good at English and sometimes it is useless to try. But don't be afraid, I will always have a chance to learn” (GJ13).

After six sessions of the intervention, many of the participants perceived that their foreign language abilities and foreign language speaking abilities were malleable, few participants perceived that their abilities were malleable but very slowly, and only one participant perceived that their foreign language abilities were fixed.

The results suggested a relationship between mindsets and foreign language speaking performance that the participants viewed mindsets could influence their language learning and foreign language speaking skills. Endorsing a growth mindset influenced the participants to believe in their potential to improve their foreign language abilities and foreign language speaking abilities:

“Growth mindset encourages me to learn new things, opportunities to learn, ready to improve our potential, always be like a half-empty glass which is always ready to embrace challenges” (GJ24).

Moreover, the findings further revealed that a growth mindset influenced the participants to put on effort in their learning and to understand that challenges were a part of the learning process: “Growth mindset encourages me to embrace challenges, to improve myself, learn from mistakes, and do not look down on myself when I make mistakes” (GJ8).

4.3.3.2 Effort and Its Role in Foreign Language Learning and Speaking

Following the second session of the language mindset intervention, participants engaged in reflection regarding their efforts in foreign language speaking. Among the participants, most of them perceived effort as crucial in learning foreign language speaking, while one participant perceived that exerting effort did not contribute to the acquisition of foreign language speaking skills. The results indicated that participants utilized six strategies to develop foreign language speaking abilities. The first strategy was self-monitoring. The students evaluated and adapted strategies based on their learning outcomes:

“I find the way to make myself understand. For example, if pronunciation is the problem, I will search how to pronounce the correct sound on the internet. If grammar is the problem, I will search about grammar rules on the internet” (GJ28).

The second strategy was practice. The students performed speaking repeatedly to improve their speaking skills: “I practice my pronunciation, and I jot down how to pronounce each difficult word” (GJ35).

The third strategy was utilizing tool. The students employed tool to learn speaking skills: “I use the application to listen to how the words are pronounced. Watch the video to learn how to pronounce the words” (GJ17).

The fourth strategy was self-study. The students learned to speak a foreign language outside the classroom on their own: “I look up for vocabulary and look up for the correct pronunciation of the words on the internet” (GJ9).

The fifth strategy was seeking help from others. The students asked for assistance from their peers: “I will ask my friends who are good at English and ask them about the points to improve” (GJ15).

Finally, the sixth strategy was avoiding problems or challenges: “I speak in English with soft voice or stay quiet” (GJ36).

The results indicated that the participants acknowledged the significance of effort in relation to their speaking performance. However, when confronted with obstacles or challenges, some participants opted for avoidance

strategies. Consequently, this behavior might have implications for the enhancement of their speaking proficiency.

4.3.3.3 Attribution of Failures in Foreign Language Speaking

The participants engaged in reflection on attribution in foreign language speaking. The findings indicated that many participants attributed failures in foreign language speaking to a perceived lack of innate ability, whereas some of them participants did not attribute such failures to this variable before the language mindset intervention.

After receiving the language mindset intervention, the participants attributed their failures in foreign language speaking to six factors namely, lack of effort, lack of linguistic knowledge, lack of practice, lack of confidence, difficulty level of the lessons, and lack of talent.

Lack effort referred to when the students ascribed failures in foreign language speaking to not putting on enough effort:

“It's because I don't like English subject and I don't put on effort in speaking English, so I will try to put on effort so that I will acquire speaking skills and will be able to communicate in English. So that I have speaking skills and can utilize it when necessary” (GJ13).

Lack of linguistic knowledge referred to when the students ascribed failures in foreign language speaking to not enough linguistic knowledge: “I don't have enough basic knowledge in language, so I focus on learning grammar because I think grammar is basic knowledge of language” (GJ2).

Lack of practice referred to when the students ascribed failures in foreign language speaking to not enough practice of foreign language speaking: “I haven't practice enough so I go back and study more about how to make a correct pronunciation” (GJ33).

Lack of confidence referred to when the students ascribed failures in foreign language speaking to not being confident about their abilities: “I lack confidence, so I practice more and try to apply knowledge to use in daily life” (GJ31).

Difficulty level referred to when the students ascribed failures in foreign language speaking to the difficulty level of speaking lesson: “It is too difficult for me, so I don't pay much attention” (GJ10).

Lastly, lack of talent referred to when the students ascribed failures in foreign language speaking to limited ability: “I am not good at language, so I practice my pronunciation” (GJ36).

The results indicated that the participants perceived their ability to control these factors by proposing strategies to address failures in foreign language speaking. However, a subset of participants demonstrated avoidance behavior towards failures by redirecting their focus to other subjects of interest.

4.3.3.4 Achievement Goals and Behavior in the Classroom

The participants engaged in reflection on their goal orientations in foreign language speaking. The findings indicated that most of the participants used to set their goal to pass a foreign language examination, whereas a few participants hadn't set this kind of goal. With these performance goals, most participants were disheartened by language learning before: "I used to be disheartened. It is normal when we do things that we are not good at and we expect good results" (GJ16).

However, some of the participants never felt disheartened with language learning since they embraced challenges and viewed failures or mistakes as a part of their learning process: "I never be disheartened because I know that I will make some mistakes. I am not afraid of making mistakes, I try to practice my English speaking" (GJ6).

Furthermore, the findings revealed that the participants set various goals related to foreign language speaking. Most of the participants set goals to communicate in English in their daily lives. Very few participants set goals to be able to use a foreign language in their future career or to improve their language competence and grade. Moreover, a few participants wanted to change their strategies to set goals related to foreign language speaking by setting goals that were not too difficult to achieve and by setting specific goals at a time.

Regarding their goals, the participants revealed three aspects of their behavior in classroom speaking activities related to their goals: 1) participation in classroom activities, 2) expressing discomfort during participation in classroom activities, and 3) avoiding participation in classroom activities.

Participation in classroom referred to when the participants stated that they join the classroom's speaking activities by trying to speak in a foreign language: "I sometimes can perform or can't perform because I am always nervous. However, I have courage to speak. Although I make some mistakes, I try to speak" (GJ1).

Expressing discomfort referred to when the participants stated that they experience negative emotions when they participate in the classroom's speaking activities: "I always feel anxious because I afraid of making mistakes like using the wrong words" (GJ11).

Avoiding participation referred to when the participants stated that they would avoid joining the classroom's speaking activities: "I always avoid participating in speaking activities because I always have anxiety and lack of confidence" (GJ8).

The findings indicated that participants who engaged in classroom activities demonstrated a tendency to establish both mastery and performance goals, similar to participants who expressed discomfort during classroom participation and those who avoided participation in classroom activities. However, participants who established performance goals exhibited a greater tendency for discouragement in language learning compared to those who did not set performance goals.

4.3.3.5 Interpretation of Failures and Mistakes and Emotional Experience

The participants engaged in reflection on failures and mistakes in foreign language speaking. In general, some of the participants perceived failures and mistakes as learning opportunities. Few participants considered failures and mistakes as integral to their learning process: "it's just mistakes, doesn't mean that I fail" (GJ12). Very few participants regarded failures and mistakes as determinants of their language learning abilities: "Failures/mistakes are what define me that I am not good at English and learning English" (GJ11). Other participants did not identify any failures or mistakes in their journal writing. However, the findings indicated that the participants associated mistakes in foreign language speaking with instances of incorrect pronunciation or inappropriate vocabulary usage.

Failures and mistakes occurred when the participants did not exert sufficient effort. These experiences led to feelings of insecurity when speaking a foreign language.

When encountering failures and mistakes, the participants experienced emotions across various dimensions: positive, neutral, and negative. Positive emotions were associated with enjoyment and confidence: "I enjoy it, sometimes I am shy, and I also feel confidence" (GJ13). Neutral emotions referred to instances where participants did not specify particular feelings but rather articulated reasons or thoughts regarding failures or mistakes: "I think it's normal, we all can make mistakes" (GJ29). Negative emotions encompassed sadness, shyness, disheartenment, worry, lack of confidence, fear, stress, surprise, and nervousness: "I am afraid, then I will just mumble because I will feel that I can't speak, and I lack confidence in speaking English" (GJ12).

The findings indicated that the participants experienced a range of emotions. Consequently, while participants reported positive emotions, they also experienced negative emotions. Furthermore, negative emotions frequently co-occurred with other negative emotions.

4.3.3.6 Self-Regulatory Tendencies and Perception of Feedback

The participants engaged in reflection on their self-regulatory tendencies after setbacks in foreign language speaking. The findings indicated that the participants employed four strategies to tackle failures and mistakes: proactive strategies, emotion regulation, attribution of failures and mistakes, and ignorance.

The proactive strategies referred to when the students actively utilize and seek strategies to improve from failures and mistakes. The students in this study employed four strategies: learning from mistakes, practicing, seeking new strategies, and seeking help from peers. Participant GJ33 employed a learning-from-mistakes strategy: “I go back and review what I have done wrong and how to make them better.” Participant GJ28 practiced speaking through various activities: “I try to practice speaking, listening to music. Sometimes, I watch movies.” Participant GJ16 sought new strategy to improve foreign language speaking: “I go over them and then find strategies to handle them.” Meanwhile Participant GJ34 sought help from peers: “I ask my friends and study more.”

The emotional regulation was how the participants articulated their emotions after encountering setbacks in foreign language speaking: “I try to be relaxed and after that I go back to practicing” (GJ38). Attribution to failures and mistakes referred to how the participants attributed their failures and mistakes: “I think that I don't practice enough” (GJ23). Lastly, ignorance referred to the act of doing nothing: “Avoid challenges and let them go” (GJ36).

Furthermore, the participants perceived feedback differently. According to the findings, many participants perceived feedback as an indication of area for improvement: “Feedback is a tool that guides me to know what I have done wrong, where I can improve and how” (GJ17). A few participants viewed feedback as a driving force: “Driving force to improve myself” (GJ1). Single participant perceived feedback as an indication of ability: “What make us know the level of our abilities in English speaking” (GJ3). Another participant regarded it as a threat to emotions: “Things that make me worry and overthinking” (GJ34).

Moreover, the findings indicated that feedback influenced participants' foreign language speaking performance across three dimensions: tools for

improvement, encouragement, indicators of current proficiency, and indicators of strengths.

Regarding tools for improvement, the findings revealed that feedback identified participants' deficiencies in foreign language speaking. Consequently, the participants recognized their weaknesses and areas for enhancement: "I can bring feedback to improve my deficiency points in foreign language speaking" (GJ3).

Regarding encouragement, the findings indicated that feedback motivated the participants to recognize their potential for developing their foreign language speaking abilities or to acknowledge their insufficient effort. As a result, they perceived the necessity to increase their efforts in foreign language speaking: "Feedback makes me think that I have to practice more and prepare myself more" (GJ16).

With respect to indicators of current ability, the findings suggested that feedback enabled students to comprehend their present proficiency level: "Feedback is what makes me think I am not good at English, but I get driving force from feedback" (GJ13).

4.3.3.7 Emotional Experience Related to Foreign Language Speaking

The participants engaged in reflection on their emotions associated with foreign language speaking in foreign language contexts. The findings indicated that the majority of participants exhibited reluctance to participate in classroom speaking activities, whereas a minority expressed readiness to embrace challenges in such activities. The participants provided more detailed accounts of their emotions when acknowledging the necessity to speak a foreign language in the classroom setting. The findings suggested that the participants experienced a range of emotions, including positive, neutral, and negative, when confronted with the requirement to participate in speaking activities.

The positive emotions identified were enjoyment and confidence. These emotions exhibited co-occurrence; when participants experienced enjoyment during speaking activities, they simultaneously reported increased confidence in speaking. However, it is noteworthy that these emotions also co-occurred with nervousness.

Neutral emotions were characterized by participants reporting an absence of specific affective states. Consequently, the participants did not experience psychological pressure.

The negative emotions identified were nervousness, worry, insecurity (lack of confidence), pressure, fear of making mistakes, anxiety, boredom, dislike,

embarrassment, and discomfort. These emotions co-occurred and influenced participants' speaking performance during their engagement in speaking activities. Patterns of occurrence were identified. The findings indicated that when participants experienced apprehension about foreign language speaking, they concurrently felt nervousness, pressure, insecurity, and fear of making mistakes. When participants experienced nervousness, they tended to feel insecure and pressured. When participants felt pressured, they tended to experience fear of making mistakes and insecurity. However, when participants experienced embarrassment, they could simultaneously derive enjoyment from foreign language speaking.

Furthermore, the participants reflected on their emotional responses during foreign language speaking activities. The findings indicated that the participants had experienced four distinct emotions: nervousness, fear, insecurity, and boredom. These emotional states were elicited by various situational factors.

Regarding nervousness, the findings suggested that participants experienced this emotion in various situations: when undertaking a speaking test, when speaking a foreign language in front of their peers, when conversing with foreigners, when receiving feedback, when unable to produce speech due to linguistic challenges such as vocabulary deficiencies, when incapable of answering questions in a foreign language, and when making mistakes. The findings indicated that participants experienced nervousness at varying intensities. Participants who experienced minimal nervousness tended not to be significantly affected by this emotion. Consequently, they reported that this emotion did not impact their foreign language speaking performance. Although other participants did not specify the degree of nervousness, the findings demonstrated the effect of nervousness on foreign language speaking. When participants experienced nervousness, they exhibited a tendency to stammer while speaking a foreign language. Furthermore, some participants tended to avoid participation by remaining silent during classroom speaking activities.

Regarding fear, the findings indicated that the participants tended to experience this emotion when required to speak in front of classmates, when subjected to a speaking assessment, and when unable to respond to questions in a foreign language. The results demonstrated that participants who experienced fear exhibited a propensity to stammer and displayed a lack of confidence when speaking a foreign language.

With regard to lack of confidence, the findings indicated that the participants exhibited a lack of confidence when confronted with speaking assessments and when required to speak in front of their peers.

Regarding boredom, the findings indicated that the participants experienced a state of disengagement when they were disinclined to participate in the classroom activities. Consequently, they exhibited a reluctance to engage in speaking activities.

Regarding participants' emotional experience, the participants had different strategies to regulate their emotions. The findings suggested that the participants employed six strategies to regulate their emotions.

Regarding Rumination, the findings indicated that some participants experienced persistent concern about making mistakes and were unable to overcome this cognitive state. Consequently, rumination led to fear of making mistakes, anxiety, and perceived pressure.

Regarding Suppression, a participant reported attempting to internalize their anxiety and refrain from expressing it. This behavior resulted in suppression when they were required to communicate in a foreign language.

Regarding Situation Selection, the participants regulated their negative emotions by opting to engage in activities other than speaking a foreign language to prepare themselves for verbal communication. Some participants chose to allocate time before speaking a foreign language, while others elected to rehearse prior to speaking. Additionally, certain participants opted to remain silent and initiated verbal communication when they felt adequately prepared.

Regarding Situation Modification, the participants alleviated their negative emotions by attempting to modify the situations through laughter, controlled breathing, and efforts to regain composure.

Regarding Attention Deployment, certain participants elected to concentrate on the activities rather than the outcomes, while others engaged in mindfulness practices and reflection concerning their worry or anxiety. Additionally, some participants opted to contemplate their preferred subjects as a means of relaxation.

Regarding reappraisal, the participants engaged in cognitive restructuring of their worry. Some participants employed positive self-talk and adopted an optimistic perspective regarding their potential for improvement. Other participants reframed the situation by envisioning themselves conversing with a close friend. Additionally, some participants reassessed the difficulty level of the speaking tasks.

In conclusion, although Thai undergraduate students experienced negative emotions during classroom speaking activities, they employed various strategies to regulate these affective states. A small number of participants engaged in

rumination, which ultimately led to emotion dysregulation; however, the majority of participants reported utilizing strategies to mitigate their negative emotions.

4.3.3.8 Students' Perception of Factors Influencing Foreign Language Speaking

The participants engaged in reflection on factors influencing foreign language speaking and selected the factor(s) that they thought could influence their speaking performance the most. The findings indicated that the participants perceived several factors influencing their foreign language speaking performance. The factors were presented in Figure 4.2 below. Participants mentioned effort and grit most frequently. They referred to mindset, thought and attitude, environment, and practice equally often. Few participants mentioned embracing failures and mistakes as a contributing factor. Very few participants referred to emotions and knowledge reserve. The least mentioned factors included intrinsic motivation, individual characteristics, goals, feedback, opportunity, and willingness to communicate. The results suggested that the participants viewed both internal and external factors could affect their foreign language speaking abilities.

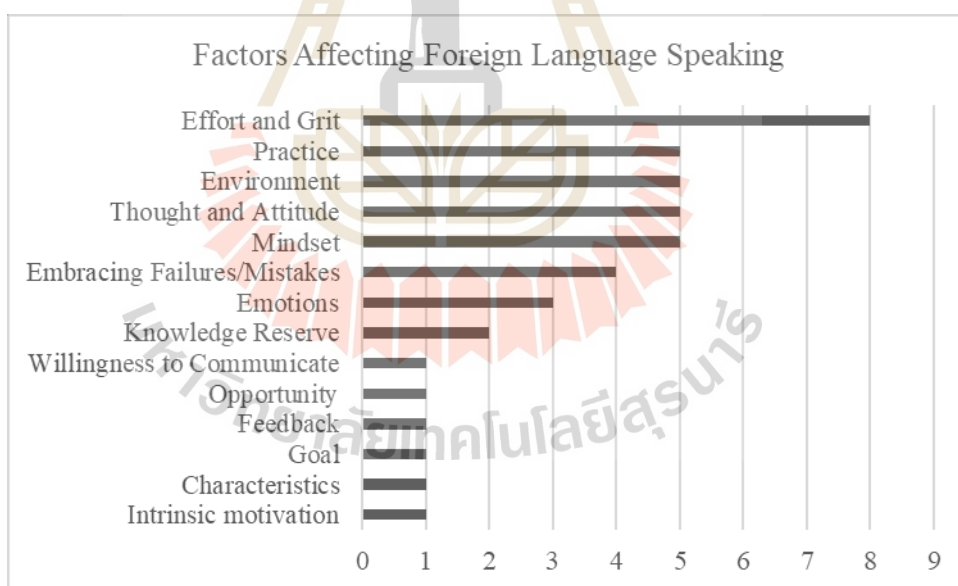


Figure 4.2 Factors Affecting Foreign Language Speaking

4.4 Does Foreign Language Speaking Mindset Among Thai Undergraduate Students Change Over Time, and if so, What is the Nature of this Change?

To investigate the change of language mindset, the language mindset intervention and the follow-up interview were carried out.

4.4.1 The Results of the Language Mindset Intervention

Although the correlation coefficient between language mindset and speaking performance and foreign language speaking mindset and speaking performance revealed that there was no significant relationship among them, the language mindset intervention revealed significant improvement in three aspects of foreign language speaking mindset among Thai undergraduate students.

The descriptives statistic showed a slight improvement of Thai undergraduate student's foreign language speaking mindset. The results were presented in Table 4.12.

Table 4.12 Foreign Language Speaking Mindset Before and After the Language Mindset Intervention

No.	Pre-Intervention			Post-Intervention		
	M	S.D.	Meaning	M	S.D.	Meaning
1	4.74	1.01	MG	4.93	0.97	MG
2	5.02	1.05	MG	4.83	1.23	MG
3	4.79	1.35	MG	5.17	1.17	SG
4	5.17	0.96	SG	5.45	0.63	SG
5	4.24	1.41	WG	4.31	1.26	WG
6	4.83	0.70	MG	4.93	0.89	MG
7	3.71	1.25	WG	3.93	1.47	WG
8	2.88	1.37	WF	3.21	1.30	WF
9	3.98	1.09	WG	4.29	0.94	WG
10	3.43	1.19	WF	3.93	1.16	WG
11	3.95	0.94	WG	4.31	1.07	WG
12	3.64	1.36	WG	4.52	0.97	MG
13	4.45	1.21	MG	4.60	1.11	MG
14	4.40	1.36	MG	4.81	1.13	MG
15	3.74	1.21	WG	3.38	1.29	WF
16	4.14	1.47	WG	4.60	1.31	MG
17	4.90	1.01	MG	5.02	0.90	MG
18	3.19	1.42	WF	3.55	1.35	WG
19	2.48	1.11	MF	2.88	1.25	WF
20	2.33	1.12	MF	3.05	1.32	WF
21	2.55	1.09	MF	2.81	1.33	WF

MG=Moderate growth, WG=Weak growth, WF=Weak fixed, and MF=Moderate fixed

Prior to conducting a paired-sample t-test, a normality test was performed to determine whether the data met the assumptions required for parametric tests. The results of a normality test of foreign language speaking mindset were presented in Table 4.13.

Table 4.13 Test of Normality of Foreign Language Speaking Mindset Before and After the Intervention

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-speaking mindset	.098	42	.200*	.976	42	.523
Post-speaking mindset	.099	42	.200*	.983	42	.786

a. Lilliefors Significance Correction

The Kolmogorov-Smirnov and Shapiro-Wilk tests suggested that foreign language speaking mindset before and after intervention were normally distributed ($p = .523$ and $.786$, respectively). Therefore, these two variables met the assumption of normality. The paired samples t-test was performed. The results were presented in Table 4.14 below.

Table 4.14 Paired Samples T-Test of Foreign Language Speaking Mindset Between Pre- and Post-Intervention

		M	S.D.	t	Significance	
					One-Sided p	Two-Sided p
Pair of Item 1	Post intervention	4.93	.97	1.60	.059	.118
	Pre intervention	4.74	1.01			
Pair of Item 2	Post intervention	4.83	1.23	-.97	.169	.338
	Pre intervention	5.02	1.05			
Pair of Item 3	Post intervention	5.17	1.17	1.69	.050	.099
	Pre intervention	4.79	1.35			
Pair of Item 4	Post intervention	5.45	.63	1.82	.038	.077
	Pre intervention	5.17	.96			
Pair of Item 5	Post intervention	4.31	1.26	.32	.377	.755
	Pre intervention	4.24	1.41			
Pair of Item 6	Post Attribution1	4.93	.89	.64	.261	.523
	Pre Attribution1	4.83	.70			
Pair of Item 7	Post intervention	3.93	1.47	.91	.184	.367
	Pre intervention	3.71	1.25			
Pair of Item 8	Post intervention	3.21	1.30	1.89	.033	.065
	Pre intervention	2.89	1.37			

Table 4.14 Paired Samples T-Test of Foreign Language Speaking Mindset Between Pre- and Post-Intervention (Cont.)

		M	S.D.	t	Significance	
					One-Sided p	Two-Sided p
Pair of Item 9	Post intervention	4.29	.95	1.80	.040	.079
	Pre intervention	3.98	1.09			
Pair of Item 10	Post intervention	3.93	1.16	2.92	.003*	.006*
	Pre intervention	3.43	1.19			
Pair of Item 11	Post intervention	4.31	1.07	2.15	.019*	.038*
	Pre intervention	3.95	.94			
Pair of Item 12	Post intervention	4.52	.97	3.51	<.001*	.001*
	Pre intervention	3.64	1.36			
Pair of Item 13	Post intervention	4.60	1.11	.64	.264	.529
	Pre intervention	4.45	1.21			
Pair of Item 14	Post intervention	4.81	1.13	1.70	.049	.098
	Pre intervention	4.40	1.36			
Pair of Item 15	Post intervention	3.38	1.29	-1.53	.067	.133
	Pre intervention	3.74	1.21			
Pair of Item 16	Post intervention	4.60	1.30	2.34	.012*	.024*
	Pre intervention	4.14	1.47			
Pair of Item 17	Post intervention	5.02	.90	.58	.282	.565
	Pre intervention	4.90	1.00			
Pair of Item 18	Post intervention	3.55	1.35	2.02	.025	.050
	Pre intervention	3.19	1.42			
Pair of Item 19	Post intervention	2.89	1.25	2.13	.020*	.039*
	Pre intervention	2.48	1.11			
Pair of Item 20	Post intervention	3.05	1.32	4.25	<.001*	<.001*
	Pre intervention	2.33	1.12			
Pair of Item 21	Post intervention	2.81	1.33	1.64	.055	.109
	Pre intervention	2.55	1.09			

Asterisk Indicates Significance

The paired samples t-test indicated a slight improvement in the mindset related to foreign language speaking; however, these changes were not statistically significant. The data presented in the table reveal a minor increase, yet no significant difference was observed between the pre- and post-measurements for several items (Items 1-9, Items 13-15, Items 17-18, and Item 21). Conversely, a significant increase was noted from pre- to post-measurements for items 10, 11, 12, 16, 19, and 20, suggesting that the intervention positively influenced students' mindsets in aspects related to achievement goals, self-regulatory tendencies, and competence-based emotional tendencies.

Regarding Thai undergraduate students' speaking performance, the mean score on the post-speaking test was significantly higher than the mean score on the pre-speaking test. Prior to conducting a paired-sample t-test, a normality test was performed to determine whether the data met the assumptions required for parametric tests. The results of a normality test of speaking performance were presented in Table 4.15.

Table 4.15 Test of Normality of Speaking Performance Before and After the Intervention

	Tests of Normality					
	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-speaking performance	.244	42	.000	.877	42	.000
Post-speaking performance	.212	42	.000	.922	42	.007

The Kolmogorov-Smirnov and Shapiro-Wilk tests suggested that speaking performance scores before and after intervention significantly deviated from normality ($p < .05$). Given the violation of the normality assumption, a non-parametric test was employed. Since the analysis aimed to measure the difference of the speaking performance scores before and after the intervention, the Wilcoxon Signed Ranks test was performed the results were presented in Table 4.16. below.

Table 4.16 Wilcoxon Signed-rank Test of Speaking Performance Between Pre- and Post-Intervention

	M	S.D.	Percentiles			Z	Asymp. Sig. (2-tailed)
			25th	50th (Median)	75th		
Post-speaking test	12.93	1.31	8	9	10		
Pre-speaking test	9.02	1.26	12	13	14	-5.68	.000

Wilcoxon signed-rank test indicated that students' speaking test score was significantly higher after the language mindset intervention, $z = -5.68$, $p < .001$. The median speaking score increased to 13 following the intervention. This suggested that the intervention had a positive effect on students' speaking performance.

4.4.2 The Results of the Q-Methodology

The results from Q-methodology were presented to elaborate on the shared perspectives toward foreign language speaking mindset among Thai undergraduate

students after they have learned and reflected about their language and speaking mindsets from the language mindset intervention.

The Q-methodology data analysis of 42 statements was performed using Ken-Q Version Number 2.0.0. The data was performed using principal components statistic. Brown Centroid Factors Extracted was 6. The number of factors selected for rotation was 6. The Varimax rotation was applied.

The factor loadings of 19 participants were presented in Table 4.17. The Total Variance Explained for 19 sorts, 42 statements were 63%, suggesting that three factors could explain 63% of the variance. Moreover, three factors exhibited Eigenvalues greater than 1. The scree plot of the extracted composite is presented in Figure 4.3.

Table 4.17 Factor Loadings of 19 Participants

No	Participant	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
1	0STD	0.650	0.136	-0.342	0.084	0.068	0.007
2	1STD	0.763	-0.242	0.098	0.048	0.249	0.088
3	2STD	0.841	-0.218	0.138	0.044	0.148	0.030
4	3STD	0.217	0.305	0.650	0.283	-0.254	0.083
5	4STD	0.490	0.609	-0.089	0.200	0.258	0.096
6	5STD	0.448	0.514	0.212	0.144	-0.346	0.177
7	6STD	0.482	0.424	0.151	0.086	-0.021	0.000
8	7STD	0.859	-0.243	0.118	0.050	-0.032	0.001
9	8STD	0.641	-0.377	0.256	0.133	-0.112	0.014
10	9STD	0.790	-0.189	-0.126	0.045	0.123	0.021
11	10STD	0.877	0.044	-0.153	0.018	-0.166	0.032
12	11STD	0.736	0.170	0.100	0.008	0.248	0.088
13	12STD	0.789	-0.213	-0.256	0.086	-0.089	0.008
14	13 STD	0.745	-0.313	0.272	0.106	0.141	0.027
15	14STD	0.797	-0.181	-0.327	0.106	0.040	0.003
16	15STD	0.918	-0.196	-0.117	0.045	-0.098	0.010
17	16STD	0.334	0.452	-0.473	0.267	0.174	0.042
18	17STD	0.549	-0.117	0.057	0.013	-0.073	0.005
19	18STD	0.591	-0.267	-0.095	0.064	-0.270	0.095
Eigenvalues		8.931	1.805	1.269	0.289	0.604	0.077
Explained Variance		47	9	7	2	3	0

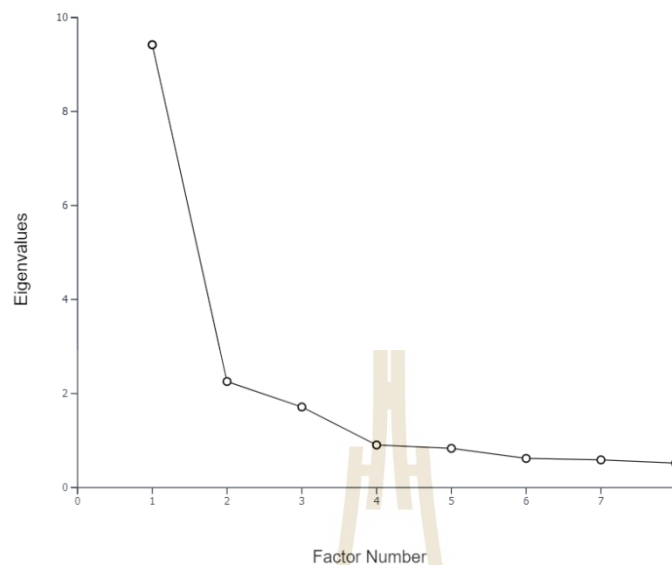


Figure 4.3 Eigenvalues of Factors

The defining sorts of each composite factor were suggested according to the factor loadings of each sort. The results suggested that there were 13 sorts which share a common perspective for Factor one. These sorts have loadings on Factor 1, ranging from 0.534 to 0.896. There were three sorts which share a common perspective for Factor two, ranging from 0.472 to 0.822 and three sorts share a common perspective for Factor three, ranging from 0.561 to 0.796. The defining sorts flagged was presented in Table 4.18.

Table 4.18 Loadings Table with Defining Sorts Flagged

Nm	Q sort	Factor Group	Factor 1	F1	Factor 2	F2	Factor 3	F3
16	15STD	F1-1	0.896	Flagged	0.110		0.269	
8	7STD	F1-2	0.866	Flagged	0.199		0.105	
3	2STD	F1-3	0.828	Flagged	0.150		0.155	
14	13STD	F1-4	0.797	Flagged	0.183		0.001	
13	12STD	F1-5	0.794	Flagged	-0.017		0.302	
15	14STD	F1-6	0.778	Flagged	-0.093		0.408	
10	9STD	F1-7	0.769	Flagged	-0.012		0.300	
2	1STD	F1-8	0.767	Flagged	0.060		0.167	
9	8STD	F1-9	0.756	Flagged	0.218		-0.135	
11	10STD	F1-10	0.742	Flagged	0.223		0.395	
19	18STD	F1-11	0.662	Flagged	0.088		0.049	

Table 4.18 Loadings Table with Defining Sorts Flagged (Cont.)

Nm	Q sort	Factor Group	Factor 1	F1	Factor 2	F2	Factor 3	F3
18	17STD	F1-12	0.537	Flagged	0.152		0.081	
12	11STD	F1-13	0.534	Flagged	0.257		0.400	
4	3STD	F2-1	0.064		0.822	Flagged	-0.090	
6	5STD	F2-2	0.155		0.716	Flagged	0.309	
7	6STD	F2-3	0.207		0.472	Flagged	0.373	
17	16STD	F3-1	0.060		0.009		0.796	Flagged
5	4STD	F3-2	0.109		0.340		0.743	Flagged
1	0STD	F3-3	0.489		0.008		0.561	Flagged

Prior to the qualitative analysis of the composite factor. The factor distribution was performed. The results were presented in Table 4.19 below. The results suggested that the participants followed the instructions by distributing the items as per the required structure. Hence, the average score across all items is zero. The standard deviations were consistent across 19 sorts. These results suggested the q-sorts data were fit for factor analysis.

Table 4.19 Free Distribution Data Results

	Q sorts	M	S.D.
1	0STD	0	2.186
2	1STD	0	2.186
3	2STD	0	2.186
4	3STD	0	2.186
5	4STD	0	2.186
6	5STD	0	2.186
7	6STD	0	2.186
8	7STD	0	2.186
9	8STD	0	2.186
10	9STD	0	2.186
11	10STD	0	2.186
12	11STD	0	2.186
13	12STD	0	2.186
14	13 STD	0	2.186
15	14STD	0	2.186
16	15STD	0	2.186
17	16STD	0	2.186
18	17STD	0	2.186
19	18STD	0	2.186

The factor analysis revealed three perspectives regarding factors related to foreign language speaking mindset. Table 4.20 presented Perspective A: Effort and

Practice is the Key to Improve Foreign Language Speaking Ability. The distinguishing statements of this perspective were presented in Table 4.21.

Table 4.20 Perspective A: Effort and Practice as a Key to Improve Foreign Language Speaking Ability

No	Statement	Z score	Q Sort Value	15 STD	7 STD	2 STD	13 STD	12 STD	14 STD	9 STD	1 STD	8 STD	10 STD	18 STD	17 STD	11 STD
1	No matter how intelligent I am, I can always improve speaking a foreign language.	2.045	4	4	3	4	4	4	4	4	3	4	4	3	4	4
2	The more I try to learn speaking a foreign language, the better I become.	2.002	4	4	4	4	4	3	4	3	4	3	3	3	4	4
8	The harder I practice, the better I will be at speaking a foreign language.	1.714	4	3	4	3	3	4	3	3	4	2	4	2	3	0
7	When speaking a foreign language is hard, it makes me want to practice more, not less.	1.698	3	3	3	3	3	4	3	2	3	4	3	4	2	4
3	I can learn to speak a foreign language well by practicing enough.	1.615	3	4	3	4	4	3	4	1	4	3	0	1	0	2
12	I may need to put effort to speak a foreign language well.	1.290	3	2	4	2	2	2	2	2	2	3	2	3	3	1
11	I think I can improve to speak a foreign language well because of hard work.	1.090	2	2	2	3	3	3	3	1	3	-1	1	1	0	3
13	I find it easier to speak a foreign language well because I put enough effort.	0.796	2	2	1	2	2	2	0	2	2	1	0	1	3	0
25	When I am failing in speaking a foreign language, it means that I have to put more effort to improve my speaking.	0.677	2	1	1	2	1	1	2	1	0	1	4	0	0	2
30	I feel good when I receive corrective feedback and criticisms on my speaking performance because they make my speaking better.	0.558	2	1	0	1	2	1	1	4	1	-1	0	1	1	3
10	If I struggle with a difficult speaking task in a foreign language, I should try easier one.*	0.499	1	3	2	2	1	-2	-1	-1	0	0	1	2	-1	2
26	When I am failing in speaking a foreign language, it means that I should find the other ways to practice my speaking.	0.463	1	1	0	1	1	0	2	1	1	2	2	1	-3	0
31	Even if I don't have talent in speaking a foreign language, I try to seek strategies to practice speaking.	0.454	1	1	0	1	0	0	0	3	1	0	3	1	1	1
29	When I couldn't do a difficult foreign language speaking task, I will try to find what makes me unable to do it.	0.350	1	1	0	-2	1	0	1	1	1	4	0	0	4	0
17	I participate in foreign language speaking activities because I enjoy learning new speaking skills.	0.235	1	0	2	1	1	-1	-2	0	2	2	-1	-1	1	1
24	I like a foreign language speaking activity best when it is easy.*	0.232	1	1	1	0	1	0	2	0	-4	0	0	4	1	-1
19	I participate in foreign language speaking activities to improve my skills.	0.230	1	-1	2	1	1	1	-2	2	2	-1	1	0	-2	0
21	I prefer foreign language speaking activities that are similar to tasks I've done before.*	0.160	0	0	1	0	0	0	1	0	1	-1	-1	4	-1	0
16	I find it hard to speak a foreign language well because I am not good at languages.*	0.146	0	2	1	0	0	1	-3	-1	-2	0	2	0	2	-1
35	I am eager to speak a foreign language in my class.	0.090	0	0	0	0	2	-1	1	0	0	1	0	0	-3	1
40	I feel nervous when I have to speak a foreign language in front of my teacher and classmates.*	0.032	0	0	0	-1	-1	1	1	0	0	0	1	-2	1	3
37	I worry that I may make some mistakes when I speak a foreign language.	-0.005	0	0	-1	-1	-1	1	1	0	-1	1	1	2	1	-1
18	I like foreign language speaking activities that challenge me.	-0.076	0	-1	1	1	0	-2	-2	1	1	2	-1	-1	-1	-1

Table 4.20 Perspective A: Effort and Practice as a Key to Improve Foreign Language Speaking Ability (Cont.)

No	Statement	Z score	Q Sort Value	15 STD	7 STD	2 STD	13 STD	12 STD	14 STD	9 STD	1 STD	8 STD	10 STD	18 STD	17 STD	11 STD
38	Even if people don't understand when I speak, I am not afraid to speak a foreign language.	-0.100	0	0	-1	-1	-1	-1	0	4	0	-1	1	-1	-2	1
36	I feel comfortable when I speak a foreign language in front of my teacher and classmates.	-0.110	0	1	-1	0	-1	0	0	0	-1	1	0	-1	-2	-2
39	I am afraid to speak in my foreign language classes.*	-0.265	-1	0	-1	-1	-2	2	1	-1	-1	-3	2	-2	0	-1
41	I worry of making mistakes when I speak a foreign language.*	-0.339	-1	0	0	-1	-3	-1	0	0	-1	-2	1	-2	0	1
42	I am afraid people will not understand me when I speak a foreign language.*	-0.443	-1	-1	-1	0	-3	1	0	1	-1	-4	0	-2	-1	1
32	When I couldn't do a difficult foreign language speaking task, it probably means that the task is beyond my level.*	-0.532	-1	-1	-2	0	-2	-1	-1	-1	0	0	-1	-1	-1	-1
33	I don't like corrective feedback and criticisms because it suggests that I am not good at speaking a foreign language.*	-0.629	-1	-1	-1	-2	-4	-1	0	-1	0	-1	-1	0	2	-4
34	Trying new learning strategies is a waste of time if I do not have talent in speaking a foreign language.*	-0.633	-1	-1	-1	-1	-4	-1	-1	-1	-3	1	-1	1	0	-2
14	I think I can speak a foreign language well because I have a talent in learning foreign languages.*	-0.703	-1	-1	-2	-2	0	2	-2	-3	-3	0	-2	2	-4	-4
22	I participate in foreign language speaking activities so others in my class won't think I'm dumb.*	-0.745	-2	-3	0	0	-1	0	-1	-2	-2	-2	-1	-4	-1	-1
27	When I am failing in speaking a foreign language, it means that I don't have enough talent in language learning.*	-0.880	-2	-2	-2	-3	0	0	-1	-2	-1	-2	-2	-1	-1	-4
15	I may need a special talent to speak a foreign language well.*	-0.890	-2	-3	1	-2	0	-2	-3	-2	-2	-1	-3	-4	1	0
20	I participate in foreign language speaking activities to prove that I'm better at it than others in my class.*	-1.022	-2	-2	-4	-1	-1	-4	-1	-1	1	0	-3	-4	0	-3
28	When I am failing in speaking a foreign language, it means that it is fruitless to practice speaking.*	-1.196	-3	-2	-2	-4	-3	-2	-1	-2	-1	-3	-2	0	-4	-3
9	To tell the truth, when I try hard to improve my foreign language speaking, it makes me feel not very smart.*	-1.312	-3	-4	-3	-3	-2	-3	-3	-3	0	1	-2	-1	-4	0
23	I might not participate in a foreign language speaking activity to avoid looking foolish when speaking.*	-1.369	-3	-2	-3	-3	-2	-3	0	-3	-3	-4	-4	-3	2	-3
4	As a language learner, I have limited ability to speak a foreign language and can't change it.*	-1.399	-4	-4	-3	1	0	-4	-4	-4	-2	-2	-4	-3	0	-2
5	Only a few people can learn and get better at speaking a foreign language, and they were born with this ability. I'm not one of them.*	-1.753	-4	-3	-4	-4	-1	-4	-4	-4	-4	-3	-3	-3	-3	2
6	To be honest, I don't think I can improve my ability to speak a foreign language.*	-1.977	-4	-4	-4	-4	-4	-3	-4	-4	-4	-4	-4	0	-2	-2

Table 4.21 Distinguishing Statements for Perspective A

Statement	Nm	Factor 1	Factor 1	Factor 1
		Q-SV	Z score	Significance
Statement 1	1	4	2.05	*
Statement 2	2	4	2	*
Statement 8	8	4	1.71	*
Statement 3	3	3	1.62	*
Statement 13	13	2	0.8	*
Statement 21	21	0	0.16	*
Statement 16	16	0	0.15	*
Statement 18	18	0	-0.08	*
Statement 38	38	0	-0.1	
Statement 14	14	-1	-0.7	*
Statement 27	27	-2	-0.88	*
Statement 9	9	-3	-1.31	*
Statement 4	4	-4	-1.4	*
Statement 5	5	-4	-1.75	*
Statement 6	6	-4	-1.98	*

P < 0.05: Asterisk Indicates Significance at P < 0.01

Considering from the participants' predominant sort from Table 4.20 (Statement 1 (Z=2.045), 2 (Z=2.002), 8 (Z=1.714), 7 (Z=1.698), 3 (Z=1.615), and 12 (Z=1.290)) and the distinguishing statements from Table 4.21 (Statement 1, 2, 8, 3, and 13 (Z=0.796)), the results indicated that Thai undergraduate students view foreign language speaking ability as malleable through effort and practice. Effort and practice enable them to learn and improve their speaking ability. Statement 2 and Statement 8 suggested a positive relationship between the amount of effort and the level of speaking performance achieved. The students view challenges as an indication to put more effort rather than setbacks which discourage them in learning. Success in learning foreign language speaking comes from persistence in practicing. They recognize the value of effort and practice in learning foreign language speaking. Moreover, the investment of effort also leads to their ease and confidence in foreign language speaking. Regarding distinguishing high negative statements (Statement 14, 27, 9, 4, 5, and 6), Thai undergraduate students disagree that their speaking ability depends solely on talent.

The interview data supported the quantitative results as Thai undergraduate students possess a strong conviction toward effort. When confronted with challenging tasks, they engage in self-monitoring and select to assume control of their studies. For these students, exerting effort entails initiating foreign language speaking practice at a

level they perceive as manageable or within their comfort zone. This approach enables them to establish a solid foundation and comprehension in their foreign language speaking, including the acquisition of new vocabulary, expressions, and grammatical structures. Subsequently, they can progress to practicing more advanced topics: “If we start with easier topics, we build a foundation and understanding. When we encounter difficult topics, we'll be able to handle them. For example, if we come across vocabulary we've already learned, we can progress further” (P8).

Although Statement 10, “If I struggle with a difficult speaking task in a foreign language, I should try an easier one. (sort value=1),” reflects a fixed-oriented mindset, students interpret it differently, combining it with their perception of their English language proficiency. From their perspective, this does not imply abandoning difficult tasks, but rather necessitates additional time for learning and practice, beginning at a level appropriate to their abilities. This interpretation is supported by their response to Statement 7, “When speaking a foreign language is hard, it makes me want to practice more, not less. (sort value=3),” indicating their recognition of the need for extended practice time and vocabulary acquisition to enhance their speaking skills: “For me, it is very difficult, which means I have to practice more than others” (P13).

From this perspective, they attribute their success to effort and practice. Subsequent follow-up interviews revealed that Thai undergraduate students also perceive talent as beneficial to their learning, specifically in that individuals with language aptitude are able to comprehend lessons more promptly. However, talent is not considered the primary factor influencing their foreign language speaking skills. Although they acknowledge certain limitations to their potential, they believe that they can exert control over their foreign language speaking proficiency through diligent effort:

“Every time I try to practice and memorize vocabulary, if I do it for a while, I can remember it. But over time, I forget it, even though I just read it. I think we need discipline and effort. First, we need to open our minds and believe it's easy. I used to think English was difficult. When I forced myself to do it, I couldn't succeed. At one point, I tried to open my mind, telling myself that I could do it, practicing without pressuring myself. I realized that talent doesn't necessarily lead to improvement; it's about discipline and our habits.” (P11)

The composite Q sort for the second perspective was presented in Table 4.22 and the distinguishing statements were presented in Table 4.23.

Table 4.22 Perspective B: Self-regulatory Tendencies from Appraisal of Talent and Effort

No	Statement	Z score	Q Sort Value	3 STD	5 STD	6 STD
31	Even if I don't have talent in speaking a foreign language, I try to seek strategies to practice speaking.	2.031	4	4	4	2
16	I find it hard to speak a foreign language well because I am not good at languages.*	1.816	4	4	4	-1
7	When speaking a foreign language is hard, it makes me want to practice more, not less.	1.458	4	3	2	3
15	I may need a special talent to speak a foreign language well.*	1.428	3	4	3	-4
25	When I am failing in speaking a foreign language, it means that I have to put more effort to improve my speaking.	1.279	3	1	4	4
9	To tell the truth, when I try hard to improve my foreign language speaking, it makes me feel not very smart.*	1.141	3	3	1	1
12	I may need to put effort to speak a foreign language well.	1.118	2	2	3	0
10	If I struggle with a difficult speaking task in a foreign language, I should try easier one.*	1.034	2	1	3	3
8	The harder I practice, the better I will be at speaking a foreign language.	0.861	2	1	2	3
3	I can learn to speak a foreign language well by practicing enough.	0.789	2	1	2	2
26	When I am failing in speaking a foreign language, it means that I should find the other ways to practice my speaking.	0.585	1	1	0	4
6	To be honest, I don't think I can improve my ability to speak a foreign language.*	0.567	1	2	-1	2
5	Only a few people can learn and get better at speaking a foreign language, and they were born with this ability. I'm not one of them.*	0.495	1	2	-1	1
32	When I couldn't do a difficult foreign language speaking task, it probably means that the task is beyond my level.*	0.472	1	1	1	0
4	As a language learner, I have limited ability to speak a foreign language and can't change it.*	0.446	1	3	-3	1
2	The more I try to learn speaking a foreign language, the better I become.	0.317	1	0	1	2
24	I like a foreign language speaking activity best when it is easy.*	0.28	1	2	-1	-2
29	When I couldn't do a difficult foreign language speaking task, I will try to find what makes me unable to do it.	0.173	0	0	1	0
34	Trying new learning strategies is a waste of time if I do not have talent in speaking a foreign language.*	0.072	0	0	0	1
11	I think I can improve to speak a foreign language well because of hard work.	0.049	0	-1	2	0
19	I participate in foreign language speaking activities to improve my skills.	0	0	0	0	0
27	When I am failing in speaking a foreign language, it means that I don't have enough talent in language learning.*	0	0	0	0	0
40	I feel nervous when I have to speak a foreign language in front of my teacher and classmates.*	-0.053	0	-1	1	1
41	I worry of making mistakes when I speak a foreign language.*	-0.053	0	-1	1	1
13	I find it easier to speak a foreign language well because I put enough effort.	-0.061	0	0	-2	4
17	I participate in foreign language speaking activities because I enjoy learning new speaking skills.	-0.121	-1	1	-2	-1
39	I am afraid to speak in my foreign language classes.*	-0.125	-1	-1	1	0
35	I am eager to speak a foreign language in my class.	-0.245	-1	0	-1	-1
37	I worry that I may make some mistakes when I speak a foreign language.	-0.442	-1	-1	0	-2
1	No matter how intelligent I am, I can always improve speaking a foreign language.	-0.472	-1	-1	-1	0
42	I am afraid people will not understand me when I speak a foreign language.*	-0.741	-1	-2	0	-2

Table 4.22 Perspective B: Self-regulatory Tendencies from Appraisal of Talent and Effort (Cont.)

No	Statement	Z score	Q Sort Value	3 STD	5 STD	6 STD
30	I feel good when I receive corrective feedback and criticisms on my speaking performance because they make my speaking better.	-0.766	-1	0	-4	-1
28	When I am failing in speaking a foreign language, it means that it is fruitless to practice speaking.*	-0.842	-2	-2	-1	-1
20	I participate in foreign language speaking activities to prove that I'm better at it than others in my class.*	-0.861	-2	-1	-2	-3
38	Even if people don't understand when I speak, I am not afraid to speak a foreign language.	-0.873	-2	-2	-2	1
33	I don't like corrective feedback and criticisms because it suggests that I am not good at speaking a foreign language.*	-1.141	-2	-3	-1	-1
23	I might not participate in a foreign language speaking activity to avoid looking foolish when speaking.*	-1.265	-3	-4	0	-1
18	I like foreign language speaking activities that challenge me.	-1.333	-3	-2	-3	-3
22	I participate in foreign language speaking activities so others in my class won't think I'm dumb.*	-1.337	-3	-4	0	-2
21	I prefer foreign language speaking activities that are similar to tasks I've done before.*	-1.631	-4	-3	-3	-3
36	I feel comfortable when I speak a foreign language in front of my teacher and classmates.	-1.876	-4	-3	-4	-4
14	I think I can speak a foreign language well because I have a talent in learning foreign languages.*	-2.175	-4	-4	-4	-4

Table 4.23 Distinguishing Statements for Perspective B

Statement	Factor 2		Factor 2	Factor 2
	Nm	Q-SV	Z score	Significance
Statement 31	31	4	2.03	*
Statement 16	16	4	1.82	*
Statement 15	15	3	1.43	*
Statement 9	9	3	1.14	*
Statement 6	6	1	0.57	*
Statement 5	5	1	0.5	*
Statement 4	4	1	0.45	
Statement 11	11	0	0.05	*
Statement 1	1	-1	-0.47	
Statement 30	30	-1	-0.77	*
Statement 38	38	-2	-0.87	
Statement 36	36	-4	-1.88	*

P < 0.05 : Asterisk Indicates Significance at P < 0.01

The second perspective illustrated Thai undergraduate students perceive that they have low language ability. However, they have strong agreement that they would seek strategies to improve their foreign language speaking ability. This agreement reflects Thai undergraduate students' resilience and proactive approach in their learning. The students recognize that the challenges in their learning might come from their language talent and these challenges could impact their self-esteem when it comes to speaking a foreign language. In addition, when considering the strong agreement statements and the slight agreement statements (Statement 6, 5, and 4), the results also suggested that the students might adopt a mixed mindset since these statements point out the underlying fixed mindset belief toward foreign language speaking. Regarding distinguishing negative statements, the results indicated that Thai undergraduate students slightly disagree that they are comfortable when receiving corrective feedback. The strong disagreement in Statement 38 (-2) and 36 (-4) reflects a high level of speaking anxiety and discomfort in the classroom settings. These discomfort and communication apprehension might be the reason why Thai undergraduate students interpret that it is difficult to improve their foreign language speaking ability.

The follow-up interview after Q-sorting supported the quantitative results as they indicated that Thai undergraduate students perceived themselves as lacking talent in the domain of language learning. In their view, talent refers to the ability to perform tasks proficiently. Consequently, when they encounter failure situations in foreign language speaking, they conclude that they lack talent. Furthermore, the students engaged in self-comparison with their previous progress. When they fail to receive confirmation of improvement, they interpret this as confirmation of their low language abilities:

"It's because I think I am not good at languages. As a child, I was a bit against it, did not like it, so I did not use it or speak it much. So, I see it as difficult because I am not good at it, and hence I do not speak it well. Back in middle school, I got very low grades, and I thought, "Am I that bad?" Before that, I was doing okay, but it got really bad, and I felt heavy. So, I decided to be more determined. But despite my best efforts, it didn't improve much."
(P4)

The findings elucidated why some students experienced discomfort toward feedback or criticism, as they had previously encountered punitive measures and severe feedback from educators and peers when attempting to communicate in a foreign language. In addition to these negative experiences, students asserted that constructive feedback would be beneficial to their learning process:

“Hmm... It feels like when I try to speak; sometimes I am afraid of making mistakes and not being understood. This is similar to the case when I was a child. I was quite an anti-English subject because I had a teacher who would hit us if we could not solve problems. This has made me very resistant. I was angry, but tried to learn, and it was quite difficult. That feeling stuck with me. Now, I am not that afraid, but back in grades 4, 5, and 6, I was very scared. Even in Grade 7, I was still scared. It improved in grade 8 because I had a new teacher who was a bit younger and did not focus on punishment. The teacher taught us how to do things. ... If a foreigner tells me I’m using the wrong grammar, I feel both okay and not okay. I have tried to correct this point and put in more effort. If they criticize harshly, I feel bad, but some people provide constructive criticism, which is helpful.” (P6)

Regarding their perspective, to enhance foreign language speaking proficiency, increasing effort and developing new strategies are proposed solutions to address their perceived language deficiencies. Furthermore, the students elucidated that "feeling unintelligent" or lacking talent in language learning is not a negative self-assessment but rather an acknowledgment of their current language competence. Consequently, they seek strategies to improve their foreign language speaking skills: “Because I'm not good at speaking, stumbling, making mistakes, swapping words, it makes me look unintelligent. But I do not feel bad or upset about it. I acknowledge I'm not smart and try harder” (P4).

The composite Q sort for the third perspective was presented in Table 4.24 and the distinguishing statements were presented in Table 4.25.

Table 4.24 Perspective C: Discomfort and Communication Apprehension in Classroom Setting

No	Statement	Z score	Q Sort Value	16 STD	4 STD	0 STD
39	I am afraid to speak in my foreign language classes.*	1.964	4	4	4	2
42	I am afraid people will not understand me when I speak a foreign language.*	1.961	4	4	3	4
10	If I struggle with a difficult speaking task in a foreign language, I should try easier one.*	1.807	4	3	4	3
12	I may need to put effort to speak a foreign language well.	1.675	3	4	2	3
41	I worry of making mistakes when I speak a foreign language.*	1.523	3	3	4	0
11	I think I can improve to speak a foreign language well because of hard work.	1.074	3	2	1	4
40	I feel nervous when I have to speak a foreign language in front of my teacher and classmates.*	0.947	2	3	1	0
37	I worry that I may make some mistakes when I speak a foreign language.	0.922	2	1	3	1
7	When speaking a foreign language is hard, it makes me want to practice more, not less.	0.86	2	0	3	3

Table 4.24 Perspective C: Discomfort and Communication Apprehension in Classroom Setting (Cont.)

No	Statement	Z score	Q Sort Value	16 STD	4 STD	0 STD
38	Even if people don't understand when I speak, I am not afraid to speak a foreign language.	0.793	2	2	2	-1
2	The more I try to learn speaking a foreign language, the better I become.	0.598	1	2	0	1
30	I feel good when I receive corrective feedback and criticisms on my speaking performance because they make my speaking better.	0.574	1	0	2	2
35	I am eager to speak a foreign language in my class.	0.504	1	2	0	0
1	No matter how intelligent I am, I can always improve speaking a foreign language.	0.443	1	1	1	0
3	I can learn to speak a foreign language well by practicing enough.	0.441	1	1	0	2
8	The harder I practice, the better I will be at speaking a foreign language.	0.381	1	0	1	2
31	Even if I don't have talent in speaking a foreign language, I try to seek strategies to practice speaking.	0.346	1	1	0	1
26	When I am failing in speaking a foreign language, it means that I should find the other ways to practice my speaking.	0.035	0	-1	1	1
29	When I couldn't do a difficult foreign language speaking task, I will try to find what makes me unable to do it.	0	0	0	0	0
36	I feel comfortable when I speak a foreign language in front of my teacher and classmates.	-0.035	0	1	-1	-1
32	When I couldn't do a difficult foreign language speaking task, it probably means that the task is beyond my level.*	-0.06	0	-1	1	0
27	When I am failing in speaking a foreign language, it means that I don't have enough talent in language learning.*	-0.065	0	-1	-1	4
23	I might not participate in a foreign language speaking activity to avoid looking foolish when speaking.*	-0.097	0	0	-1	1
9	To tell the truth, when I try hard to improve my foreign language speaking, it makes me feel not very smart.*	-0.151	0	-1	2	-3
25	When I am failing in speaking a foreign language, it means that I have to put more effort to improve my speaking.	-0.157	0	-1	0	1
34	Trying new learning strategies is a waste of time if I do not have talent in speaking a foreign language.*	-0.224	-1	1	-1	-3
13	I find it easier to speak a foreign language well because I put enough effort.	-0.409	-1	-2	0	1
4	As a language learner, I have limited ability to speak a foreign language and can't change it.*	-0.538	-1	-1	-1	-1
5	Only a few people can learn and get better at speaking a foreign language, and they were born with this ability. I'm not one of them.*	-0.571	-1	0	-1	-4
6	To be honest, I don't think I can improve my ability to speak a foreign language.*	-0.608	-1	1	-3	-3
28	When I am failing in speaking a foreign language, it means that it is fruitless to practice speaking.*	-0.671	-1	0	-3	-1
19	I participate in foreign language speaking activities to improve my skills.	-0.695	-1	-2	-1	0

Table 4.24 Perspective C: Discomfort and Communication Apprehension in Classroom Setting (Cont.)

No	Statement	Z score	Q Sort Value	16 STD	4 STD	0 STD
33	I don't like corrective feedback and criticisms because it suggests that I am not good at speaking a foreign language.*	-0.862	-2	0	-4	-1
15	I may need a special talent to speak a foreign language well.*	-0.942	-2	-3	1	-4
24	I like a foreign language speaking activity best when it is easy.*	-1.019	-2	-1	-4	0
22	I participate in foreign language speaking activities so others in my class won't think I'm dumb.*	-1.077	-2	-2	-2	-2
16	I find it hard to speak a foreign language well because I am not good at languages.*	-1.101	-3	-4	0	-1
17	I participate in foreign language speaking activities because I enjoy learning new speaking skills.	-1.234	-3	-3	-2	-1
21	I prefer foreign language speaking activities that are similar to tasks I've done before.*	-1.269	-3	-2	-3	-2
20	I participate in foreign language speaking activities to prove that I'm better at it than others in my class.*	-1.518	-4	-3	-2	-4
18	I like foreign language speaking activities that challenge me.	-1.58	-4	-4	-2	-2
14	I think I can speak a foreign language well because I have a talent in learning foreign languages.*	-1.964	-4	-4	-4	-2

Table 4.25 Distinguishing Statements for Perspective C

Nm	Statement	Nm	Q-SV	Z score	Significance
39	Statement 39	39	4	1.96	*
42	Statement 42	42	4	1.96	*
10	Statement 10	10	4	1.81	
41	Statement 41	41	3	1.52	*
40	Statement 40	40	2	0.95	
37	Statement 37	37	2	0.92	*
38	Statement 38	38	2	0.79	*
1	Statement 1	1	1	0.44	
23	Statement 23	23	0	-0.1	*
9	Statement 9	9	0	-0.15	*
25	Statement 25	25	0	-0.16	*
4	Statement 4	4	-1	-0.54	
5	Statement 5	5	-1	-0.57	*
6	Statement 6	6	-1	-0.61	*
24	Statement 24	24	-2	-1.02	*
16	Statement 16	16	-3	-1.1	*
17	Statement 17	17	-3	-1.23	*

P < 0.05 : Asterisk Indicates Significance at P < 0.01

The third perspective revealed the discomfort and speaking apprehension among Thai undergraduate students (Statement 39, 42, 41, 40, 37, 38). These

discomforts consisted of negative emotions related to speaking a foreign language during classroom activities where the students have to speak in front of their classmates. Moreover, the fear of making mistakes and the fear of producing unintelligible speeches result in students' speaking apprehension. Along with discomfort and communication apprehension, Thai undergraduate students perceived that effort and practice could lead to improvement in their foreign language speaking. When struggling with difficult speaking tasks, they think that the tasks might be beyond their level. Hence, they should try the easier tasks. They value feedback because they view that feedback helps them improve their foreign language speaking skills.

On the contrary of this perspective, the results showed that Thai undergraduate students disagreed that they can't change their speaking abilities (Statement 4, 5, 6). Although they agreed that they should find easier tasks when they strive to perform difficult speaking tasks, they disagreed that they prefer easy speaking tasks (Statement 24, 16). Moreover, the results strongly suggested that Thai undergraduate students experience discomfort during their learning of foreign language speaking since they disagree that they enjoy learning speaking skills (Statement 17).

The subsequent interview elucidated the reasons for students' frequent negative emotional experiences, attributing them to the fear of making mistakes and producing unintelligible speech, self-evaluation, and apprehension of negative peer judgment:

"Since I'm not fluent in English yet, I'm afraid that when I try to speak, others might not understand what I'm trying to say or I'm afraid that I will say something wrong. It might be because I don't understand. When I do activities, I might not know what other students are saying, or I might actually be afraid of speaking, like how I answered that I'm scared of speaking in front of many people." (P1)

The apprehension regarding errors and incomprehensible speech arises from students' self-evaluation of their speaking performance, which leads them to perceive their foreign language abilities as inadequate. This self-perception induces anxiety when they are required to communicate in a foreign language within the classroom environment. Although they have not reported receiving any explicit judgment or criticism from their peers, the fear of making mistakes and the apprehension of negative evaluation have resulted in excessive reflection about their speaking performance: "No, no one said anything. I just felt that I couldn't do it and didn't want to speak

anymore. Mostly, I overthink. If I don't do well, I get nervous and worry about others judging me” (P17).

Regarding self-attribution, the student reported that they considered talent as a potential factor contributing to proficient speaking performance. Although they perceived themselves as lacking in talent, they also recognized the value of effort in acquiring foreign language speaking skills. Consequently, in addition to experiencing discomfort during speaking activities, the students engaged in self-evaluation and sought strategies to enhance their foreign language speaking abilities:

“Talent, I feel that some people might have talent because they understand a second language more easily and learn faster,..., but they might also need effort. Sometimes I practice and then forget. That's the problem. Practice doesn't cause failure, but I might forget.” (P5)

Furthermore, the students indicated that if the instructor could foster a supportive atmosphere in the classroom, such as facilitating rapport-building among peers before initiating speaking activities, these measures could enhance their comfort level and increase their confidence in speaking a foreign language within the classroom setting: “In my current class, I don't know everyone. Sometimes I get nervous. If we are close, I would feel more comfortable speaking” (P5).

4.4.3 The Results from the Semi-Structured Interview

Semi-structured interview data were audio-recorded. Subsequently, the data were transcribed and translated into English. The data were reviewed to gain an initial understanding of the analysis. The analysis was conducted using thematic analysis guidelines proposed by Braun and Clarke (2006). Deductive approaches were employed to gain insights into the change in mindset related to foreign language speaking mindset among Thai undergraduate students. Initial codes were generated across the dataset. Subsequently, a thematic map was developed based on these initial codes.

The findings revealed a relationship between cognitive development and beliefs toward foreign language speaking ability among Thai undergraduate students. As their cognitive abilities matured, students demonstrated an enhanced capacity for reasoning about language acquisition and usage. This cognitive growth is accompanied by a cultivation of mindset, particularly regarding the importance of foreign language proficiency. The evolving perspective appeared to be intrinsically linked to their expanding awareness of future careers and opportunities:

“I started thinking this way around the time I was preparing for university. When I was younger, it felt difficult. I made a lot of mistakes and saw others who were better, so I didn't feel like speaking much. Approaching adulthood made me think more about my future. I feel good about wanting to improve myself and being more confident than before.” (P16)

Furthermore, this cognitive and mindset progression manifested in students' approach to language learning, especially in the learning of speaking skills. They began to recognize the value of effort and practice in improving their foreign language speaking abilities. This realization led to increased engagement in speaking activities, driven by the belief that practice can yield tangible improvements. The students' growing understanding of the malleability of language skills through effort aligned with growth mindset principles, suggesting that their cognitive development not only enhanced language abilities but also fostered a more productive approach to language learning:

“It can change because none of us originally knew English. They can still learn it, so why can't I. When I was a child, I didn't think it can change. I didn't think English was important. I were just primary school kids; I didn't know how necessary it was. It changed around Grade 6, I think. I just felt like I wanted to understand. My primary school didn't teach English, so I started practicing, memorizing exercises, and vocabulary on my own, like ABCs. The point that made me want to learn English was when I watched reaction videos. I was a fan, and when a new song came out, I wanted to know what people thought about it.” (P1)

The findings revealed the dynamic nature of language mindset, with students' perspectives fluctuating between growth and fixed mindsets along a continuum as they encountered failures or mistakes in their language learning. This fluctuation was influenced by various factors, including feedback from language teachers during the early stages of learning. Teachers often guided students to attribute their performance to natural talent rather than effort, practice, or experience, inadvertently fostering a fixed view of language abilities. Consequently, students tended to perceive their failures or mistakes as indicators of a lack of innate talent rather than opportunities for growth and improvement:

“My primary school wasn't very good; we just memorized vocabulary. Elderly people would make snide remarks about my English. But in high school, I changed my mindset and ignored those comments. I felt it was a shame I couldn't speak English well. I

wanted to talk to artists and communicate in English. There was a time during my English studies when I couldn't do well on exams. At that time, I think my speaking abilities can't change. But I enjoy playing English games and chatting with friends in English, which makes me more comfortable with the language. There was a time during university when I could answer questions in class. The teacher said we didn't need to translate entire sentences, just understand the key words. This made me more confident.” (P8)

The societal context also played a significant role in shaping students' mindsets. As they observed their peers improving their speaking skills, students were motivated to learn and practice to enhance their own abilities. This comparative aspect of language learning within their social environment served as a catalyst for adopting a more growth-oriented mindset:

“With practice, it can change a lot. In high school, I felt that I couldn't improve my English speaking because I failed exams and scored very low. My mindset changed in university because of my friends. They influenced me a lot. Watching videos about mindset, they gave me many new perspectives. It made me want to improve myself, like the three people in the videos you showed us.” (P17)

The relationship between external influences, such as teacher feedback and peer comparisons, and internal perceptions of ability highlighted the complex and fluid nature of language mindsets.

4.5 Summary of the Chapter

This chapter presents the findings of the current study. It presents the levels of language mindset and foreign language speaking mindset. Additionally, it explores the factors associated with the foreign language speaking mindset. A moderately positive relationship was identified between language mindset and foreign language speaking mindset. However, there was a very weak to no relationship among language mindset, foreign language speaking mindset, and speaking performance. Observations were made regarding the changes and fluctuations in students' mindsets. The subsequent chapter will discuss the study's results. A summary of findings, implications, limitations, and recommendations for future research will be addressed in Chapter Six.

CHAPTER 5

DISCUSSION

This chapter presents a discussion based on the results obtained from the current study. The chapter consisted of four sections. The first section discusses the level of language mindset and foreign language speaking mindset of Thai undergraduate students. The second section discusses the factors related to foreign language speaking mindset. The third section discusses the relationship between and among mindsets and speaking performance. The last section discusses the change in foreign language speaking mindset over time.

5.1 The Language Mindset and Foreign Language Speaking Mindset of Thai Undergraduate Students

The findings from the survey revealed that Thai undergraduate students generally hold a moderate growth language mindset and a weak growth foreign language speaking mindset. The adoption of growth language mindset among Thai undergraduate students may reflect the influence of Thailand's language education policies and the broader impact of globalization. Students in this study believed that they could improve their language intelligence, change their language aptitude, and enhance their ability to learn languages regardless of age. This belief may be reinforced by Thailand's basic core education curriculum which designates English as a compulsory subject and by university language programs that emphasize communicative competence to prepare students for future careers (Choomthong, 2014; Kaewkunha & Sukying, 2021). Moreover, data from the semi-structured interview in Stage 3 triangulated this finding as students acknowledged the perceived social and professional value of English in Thai society. The language mindset level observed in this study aligns with Mercer and Ryan's (2009) and Lou and Noels' (2019a) conceptualizations of language mindset. In addition, the growth-oriented language mindset among students in this study corresponds with findings from previous research conducted in similar Thai EFL contexts (Chuanon et al., 2021; Janudom, 2023; Wilang, 2022; Wilang, 2024).

The findings related to foreign language speaking mindset indicated that the belief patterns of Thai undergraduate students also reflected growth-oriented characteristics. Although it appears comparatively weaker than language mindset. This discrepancy

may come from the specific demands of speaking tasks which require real-time language processing, spontaneous output, and social interaction (Aizawa et al., 2023; Chema et al., 2023). Data from both the Q-methodology and the semi-structured interview triangulated these findings. Students frequently emphasized difficulties with grammar, vocabulary, and pronunciation, and highlighted individual differences in their ability to easily express or regulate negative emotions.

Students valued effort, maintained adaptive attitudes toward mistakes, and employed active self-regulatory tendencies in their learning of foreign language speaking. These findings align with the growth subsystem concept within Lou and Noels' (2019a) framework of the language mindset meaning-making system. However, notable differences were observed in students' perspectives on attribution, achievement goals, and emotional tendencies. These patterns might be influenced by the cultural context and language learning environment in Thailand.

Students' attribution tendencies presented a mixed pattern between growth and fixed beliefs. Although many students attributed language learning success to effort, a considerable number also emphasized the role of innate talent. This dual attribution pattern reflects previous findings by Dörnyei (2003) and Erten and Burden (2014), which noted that learners with lower perceived proficiency often attribute performance to external or uncontrollable factors. Participants' early experiences with punitive feedback during primary and secondary education may have contributed to the persistence of talent-based attribution.

Students' achievement goals revealed a combination of mastery and performance orientations. While some students set goals focused on improving their language speaking skills, others indicated during their journal writing that their primary motivation was to pass assessments or avoid criticism. This dual orientation can be linked to the exam-driven nature of the Thai education system (Pitikornpuangpetch & Suwanarak, 2021) and cultural expectations related to the preservation of face (Young, 2021).

Students' emotional experiences in foreign language speaking tasks were influenced by their learning backgrounds and classroom environments. Despite endorsing growth-oriented beliefs, many students reported experiencing anxiety, fear of negative evaluation, and discomfort during speaking activities. Exposure to grammar-translation approaches during secondary education and the transition to communicative methods at university level contributed to emotional vulnerability (Horwitz, 1988; Pitikornpuangpetch & Suwanarak, 2021).

An important characteristic identified among Thai undergraduate students was the prevalence of short-term effort investment. Students recognized the value of effort in

achieving success; however, their effort tended to focus on immediate academic outcomes rather than long-term skill development. The emphasis on short-term results is consistent with the educational environment and societal expectations in Thailand, where frequent assessments demand quick preparation and performance (Salsarola, 2023; Pitikornpuangpetch & Suwanarak, 2021). This short-term orientation may hinder students' ability to develop sustained speaking proficiency over time. These connections are illustrated in Figure 5.1. It presents a concept map of how Thai undergraduate students' language mindset and foreign language speaking mindset are shaped.

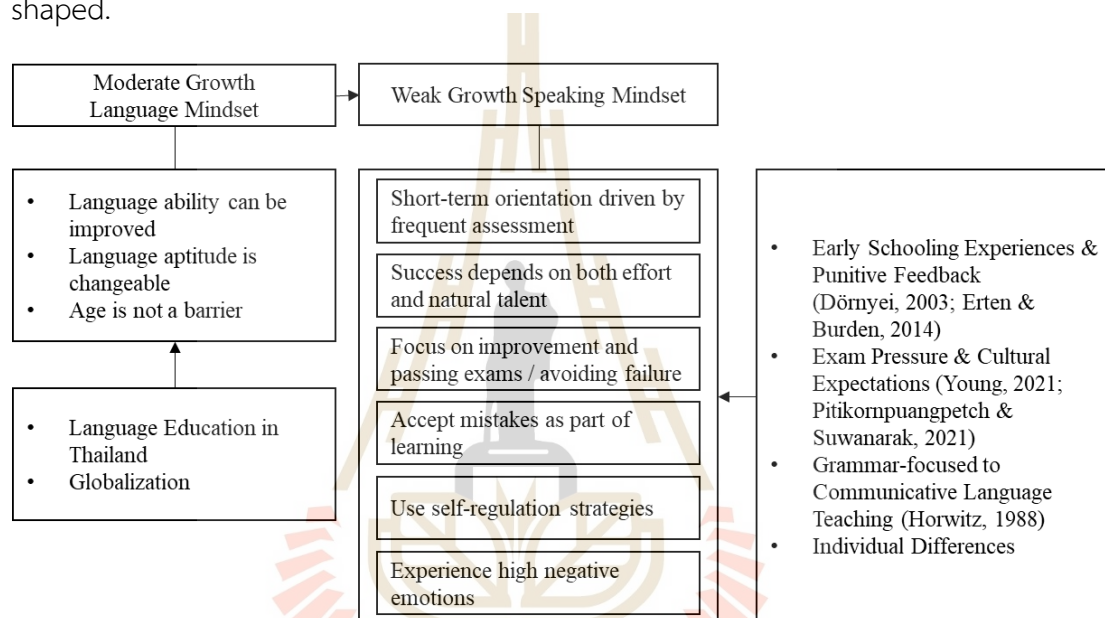


Figure 5.1 Thai Undergraduate Students' Language Mindset and Foreign Language Speaking Mindset

The findings suggest that while Thai undergraduate students demonstrate growth-oriented beliefs in both language learning and foreign language speaking, these beliefs coexist with dual attributions, performance pressures, emotional vulnerabilities, and short-term effort strategies. The interaction between personal beliefs, emotional responses, and systemic influences shapes students' overall foreign language speaking mindset and learning experiences.

The section above discussed how Thai undergraduate students adopted growth-oriented language and foreign language speaking mindset. Section 5.2 discusses the factors related to foreign language speaking mindset in detail. These factors help explain the gap between students' beliefs and their actual emotional and behavioral responses during speaking activities.

5.2 The Factors Related to Foreign Language Speaking Mindset Among Thai Undergraduate Students

This study identified three primary factors contributing to Thai undergraduate students' foreign language speaking mindset: emotional outcomes of attribution, motivational process-oriented goals, and proactive responses in failure situations.

The first factor influencing students' speaking mindset was the emotional outcomes of attribution. Negative emotions such as fear, nervousness, frustration, and shyness were commonly reported during foreign language speaking tasks. Students' perception of low language proficiency, reinforced by earlier negative learning experiences, contributed to heightened anxiety levels, consistent with the findings of Papi and Khajavy (2023). Participants expressed concerns about public speaking, especially when feedback or evaluations were framed negatively. Similar emotional patterns have been documented in Thai educational contexts, where linguistic reserve leads to foreign language learning anxiety (Bhattachaiyakorn & Phettakua, 2023). Emotional outcomes appeared to significantly shape students' willingness to participate in speaking activities. In addition, individual differences in emotional reactivity may have played a role in students' susceptibility to language anxiety (Dewaele, 2022). Furthermore, the ability to regulate emotions has been shown to predict lower anxiety levels and greater emotional resilience in language learning settings (Botes et al., 2021).

The second factor was motivational process-oriented goals. Students demonstrated a general belief in the ability to improve speaking skills through effort and practice, showing a tendency to adopt mastery goals. However, many students lacked practical strategies for setting and monitoring their progress. Qualitative data revealed that discouraging feedback occasionally led students to display avoidance behaviors, even among those who initially endorsed growth beliefs. This observation is consistent with Li et al.'s (2024) and Waluyo and Apridayani's (2024) study, which found that avoidance mastery goals may emerge when learners seek to protect their self-efficacy. Students who maintained focus on mastery goals tended to use active learning strategies and respond positively to feedback, consistent with findings by Oxford (2011), Shih (2019), and Yao and Zhu (2024).

The third factor was proactive responses in failure situations. Students who encountered setbacks and attributed difficulties to lack of effort, rather than to innate inability, demonstrated greater resilience. These students were more likely to seek feedback, adjust their learning strategies, and persist through speaking challenges, aligning with growth-oriented patterns described by Dong (2024), Lou and Noels

(2019a), and Sadeghi et al. (2020). Students who proactively engaged with their mistakes tended to interpret failures as part of the learning process rather than as threats to their competence, a behavior reflecting the mindset-goal-response model proposed by Lou and Noels (2017).

The three major factors identified in this study, which are emotional outcomes of attribution, motivational process-oriented goals, and proactive responses in failure situations, were consistently supported across multiple data sources. The consistency between the survey results, guided journal entries, and interview findings provides triangulated evidence for the central role of these factors in shaping students' foreign language speaking mindsets. These results are significant for understanding the development of foreign language speaking mindset, particularly within Thai EFL context. The three identified factors provide critical insights into how students internally respond to the cognitive and emotional challenges of speaking tasks. In Thai context, where traditional grammar-translation practices, face-saving cultural value, and exam-driven learning dominate language education, emotional vulnerability and avoidance behaviors are especially pronounced. The emotional outcome of attribution highlights how students' prior negative learning experiences and fear of negative judgment contribute to speaking anxiety. Motivational process-oriented goals point out the need to support students in meaningful, progress-based goals. Proactive responses in failure situations demonstrate the value of fostering resilience and feedback-seeking behavior. These factors help explain why growth-oriented mindset does not always translate into confident speaking behavior. Understanding this dynamic is essential for designing interventions and instructional strategies that are culturally and contextually appropriate for Thai learners.

The current section discussed the factors that shape students' foreign language speaking mindset. The next section discusses how these mindset related to students' speaking performance.

5.3 Relationship Between and Among Mindsets and Speaking Performance of Thai Undergraduate Students

The results revealed a moderate positive relationship between language mindset and foreign language speaking mindset among Thai undergraduate students. Students who believed that their general language ability could improve also tended to believe in the potential for improving their foreign language speaking abilities. This finding aligns with the concept of a mindset system proposed by Lou et al. (2022), which suggests that mindsets are systematically intertwined with related motivational and emotional

constructs, guiding learners' interpretations and responses across different domains of language learning.

In contrast, the relationship between both types of mindsets and actual speaking performance was found to be weak. Although students endorsed growth-oriented beliefs, these beliefs did not strongly predict measurable gains in speaking test scores. This observation corresponds with prior research indicating that mindset alone may not directly determine academic achievement outcomes (Lou et al., 2022; Elahi Shirvan et al., 2024; Tapia Castillo, 2023). Speaking performance likely requires the interaction of multiple factors beyond beliefs, such as emotional regulation, consistent speaking practice, feedback interpretation, and willingness to communicate under real-time pressure (Zhang, 2022). Therefore, while growth beliefs provide motivational foundations, they may not be sufficient to produce significant improvements in performance without strategic behaviors and emotional coping.

Although the quantitative results showed only weak direct relationships, the qualitative findings revealed that students' mindsets influenced speaking performance indirectly through changes in their learning strategies and emotion regulation. Students who demonstrated stronger growth-oriented beliefs engaged more actively in learning strategies, sought constructive feedback, practiced speaking more consistently, and attempted to regulate their emotional responses during speaking tasks. These learning behaviors are consistent with the mindset-goal-response model proposed by Lou and Noels (2017, 2019a), suggesting that mindsets foster adaptive processes that support gradual improvement over time. The results also align with previous research suggesting that students with mastery goals often use active learning strategies and respond positively to feedback (Oxford, 2011; Shih, 2019; Yao & Zhu, 2024).

Emotional factors emerged as critical mediators in the relationship between mindset and speaking performance. Students who developed better emotional regulation skills reported reduced anxiety, greater willingness to engage in speaking tasks, and a more positive attitude toward language learning challenges. These patterns correspond with findings by Papi and Khajavy (2023) and Zarrinabadi et al. (2022), who emphasized that the ability to manage negative emotions is essential for successful foreign language speaking development. Consequently, emotional resilience appears to be a necessary condition for translating growth-oriented beliefs into improved speaking outcomes.

The visual representation of the indirect relationship between language mindset, foreign language speaking mindset, and speaking performance is presented in Figure 5.2 below.

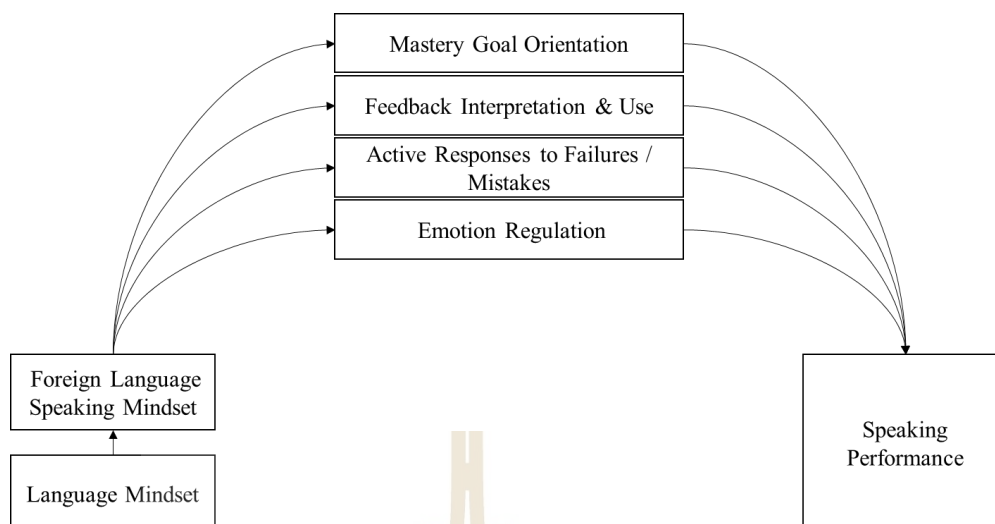


Figure 5.2 Relationship between Language Mindset, Foreign Language Speaking Mindset, and Speaking Performance

Figure 5.2 suggests that while mindset contributes to foreign language speaking development, its effects are indirect and mediated by emotional responses, feedback perceptions, and learning strategies. A simple focus on changing students' beliefs without addressing emotional and strategic dimensions is unlikely to produce significant gains in speaking performance. Therefore, interventions aiming to foster foreign language speaking ability should not target mindset in isolation but should also incorporate explicit training in emotional regulation, strategic goal setting, communication skills, and effective feedback reception, in order to maximize students' learning outcomes.

The above section showed that mindset influences speaking performance indirectly through emotion regulation and learning strategies. The next section discusses how students' foreign language speaking mindset evolved over the course of the language mindset intervention and its dynamic nature.

5.4 Change of Foreign Language Speaking Mindset Over Time

The results of the survey indicated a slight improvement in both language mindset and foreign language speaking mindset following the six-week intervention. Although most aspects of the language mindset meaning system demonstrated non-significant changes, certain dimensions, including achievement goals, self-regulatory tendencies, and competence-based emotional tendencies, exhibited meaningful development. These results suggest that the intervention had a positive but moderate effect on students' mindset orientations. This change can be partially attributed to the influence

of ecological factors, such as feedback experiences, academic requirements, and cultural values emphasizing effort, as explained by Bronfenbrenner's (1993) ecological systems theory.

These findings are illustrated in Figure 5.3 below. It presents the interaction between the language mindset intervention, internal learner changes, and ecological influences that contribute to meaningful shifts in students' mindset.

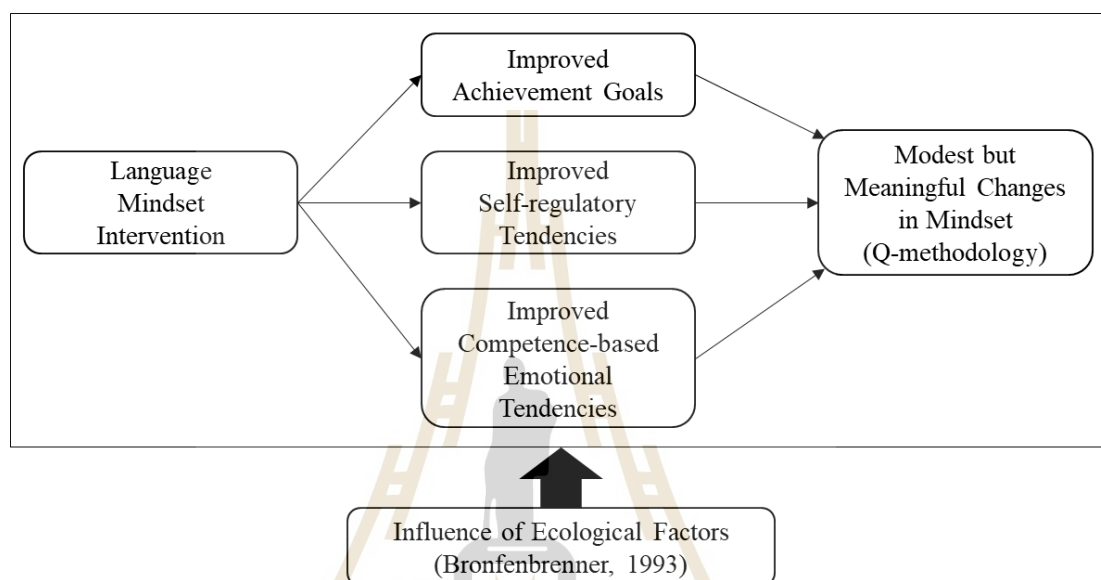


Figure 5.3 Change of Foreign Language Speaking Mindset After Intervention

According to Bronfenbrenner's (1993) ecological systems theory, multiple interconnected layers of environment influence learners' development. At the microsystem level, teachers' feedback plays a crucial role in shaping students' perceptions of effort and success. The mesosystem reflects how students' past experiences with examinations and overcoming failures impact their beliefs about learning. The exosystem includes external educational structures, such as curriculum design and grade advancement policies, which emphasize effort as a necessary value. The macrosystem reflects broader cultural beliefs about perseverance and effort, which are deeply rooted in Thai society. Finally, the chronosystem captures the influence of time and developmental changes, as students' mindsets fluctuate in response to feedback and new learning experiences. Together, these ecological layers interact to shape students' gradual development of language learning mindsets.

A notable change was observed in students' achievement goal orientations. Prior to the intervention, many students demonstrated a performance-oriented approach, focusing primarily on passing examinations and avoiding failure. After participating in

the intervention, students' guided journal reflections and survey responses indicated a shift toward mastery-oriented goals. Students began setting goals aimed at personal improvement, communication abilities, and long-term language development. They demonstrated a growing awareness that setting meaningful and personally relevant goals reduced their fear of failure. This shift aligns with findings by Chen and Wong (2014) and Derakhshan and Fathi, 2024, who noted that students pursuing mastery goals exhibit greater flexibility and resilience in language learning.

The findings also showed a positive change in students' perception of mistakes and failures. Students increasingly viewed mistakes as a natural and necessary part of the learning process rather than as indicators of inability. This perspective is consistent with the growth mindset framework proposed by Lou and Noels (2019a), which emphasizes the importance of learning from challenges. Students shared strategies such as analyzing their mistakes, seeking new approaches, and consulting peers and instructors, indicating a more adaptive and proactive response to setbacks. These observations were further supported by findings from Bai et al. (2025), Sadeghi et al. (2020), and Yao et al. (2021).

Changes in students' emotional tendencies toward foreign language speaking were also evident. Although many students continued to experience negative emotions such as anxiety and nervousness, the intensity of these feelings appeared to decrease after the intervention. Students reported improved emotional regulation strategies, such as reframing negative feedback, using positive self-talk, and seeking support from peers. These results are consistent with previous research highlighting the role of emotional regulation in successful language learning (Liu et al., 2025; Ozdemir & Papi, 2022; Zarrinabadi et al., 2022).

An important development was found in students' interpretation of feedback. Prior to the intervention, feedback was often perceived as personal criticism, reinforcing feelings of inadequacy and discouraging participation. After the intervention, students demonstrated greater openness to constructive feedback and recognized its role in supporting language development. This shift mirrors the findings of Papi et al. (2019), Papi et al. (2020), and Waluyo and Apridayani (2024), who reported that students with growth mindsets are more likely to perceive feedback as useful input rather than judgment. Improved feedback perception likely contributed to greater emotional resilience and more active engagement in speaking tasks.

In addition to survey and interview findings, the Q-methodology results provided further support for the changes observed in students' mindsets. Students acknowledged that their difficulties in foreign language speaking were linked to their

current proficiency levels rather than to fixed personal abilities. They recognized that low proficiency could be improved through effort and practice, reflecting a growth-oriented perspective. Students reported employing strategies such as practicing speaking, watching English videos, listening to songs, and expanding their vocabulary knowledge. These Q-methodology results confirmed that students were beginning to internalize more adaptive, effort-based beliefs about language learning, which complemented the patterns observed in the survey and guided journal data. These findings also reflect the theoretical ideas presented in Sections 2.2.2 and 2.2.4 (as discussed in Chapter 2). Students' responses illustrate the shift between fixed and growth perspectives depending on context. This supports the view that mindset operated as a meaning system shaped by effort, goals, and emotional responses.

The findings suggest that while changes in students' mindsets were moderate, they were meaningful in shaping their learning behaviors and emotional experiences. Mindset development appears to be a dynamic process influenced not only by intervention activities but also by students' interactions with feedback, their learning environment, and broader cultural factors. Future interventions aiming to enhance foreign language speaking mindsets should consider integrating emotional support mechanisms, gradual scaffolding for goal-setting, and strategies for positive feedback delivery to sustain mindset growth and language learning success.

5.5 Summary of the Chapter

This chapter presented the discussion of the study's main findings. Thai undergraduate students were found to hold moderate growth language mindset and weak growth foreign language speaking mindset. Three key factors were identified as influencing foreign language speaking mindsets: emotional outcomes of attribution, motivational process-oriented goals, and proactive responses in failure situations. Triangulated evidence from surveys, guided journals, and interviews supported these findings. The relationships between mindsets and speaking performance were weak but indicated that mindsets indirectly influenced learning behaviors through emotional regulation and strategy use. Modest changes in students' mindsets were observed over time, reflecting growth in goal setting, emotion regulation, and feedback perception following the intervention. These findings provide the foundation for the conclusions, implications and recommendations outlined in the next chapter.

CHAPTER 6

CONCLUSIONS

This chapter presents a summary of the findings addressing the four research questions of the study. The theoretical, methodological, contextual, and pedagogical implications drawn from the results are discussed, followed by the limitations of the study and recommendations for future research.

6.1 Summary of the Findings

The findings from Research Question One revealed that Thai undergraduate students generally believe in the malleability of their language abilities, viewing effort and practice as central to language development. These patterns are likely be influenced by language education in Thailand and the impact of globalization. This belief extended to their foreign language speaking mindset which the students showed weak oriented growth speaking mindset. Underlying this belief, Thai undergraduate students revealed the adoption of short-term oriented effort, the attribution to both talent and effort, vary achievement goals, positive interpretation of failures and mistakes, employ self-learning strategies, and experienced high negative emotions. These patterns reflect the influence of early schooling experience, punitive feedback, exam pressure, the transition of teaching practice from high school to university and individual differences.

Research Question Two identified three key factors influencing Thai undergraduate students' foreign language speaking mindsets. The first factor, emotional outcomes of attribution, captured anxiety and fear associated with speaking tasks. The second factor, motivational process-oriented goals, reflected positive attitudes toward goal-setting and the use of effort and strategies. The third factor, proactive responses in failure situations, involved viewing mistakes as opportunities for practice and strategy adjustment rather than as limitations. These factors suggested the translation of mindset to students' emotion and behavior related to foreign language speaking in Thai EFL context. The findings related to Research Question Three indicated a moderate positive relationship between language mindset and foreign language speaking mindset. Students who viewed language ability as improvable were more likely to believe in the potential for developing speaking skills. However, neither mindset showed a strong association with speaking performance. Qualitative data from

guided journals highlighted that students with a growth mindset valued effort, accepted mistakes as learning opportunities, and employed various self-regulation strategies. Emotional experiences during speaking tasks varied, with students reporting both positive emotions, such as enjoyment, and negative emotions, such as nervousness and insecurity. Feedback was perceived as both a motivator and a source of pressure, influencing students' emotional responses and goal-setting behaviors.

Research Question Four showed modest improvements in foreign language speaking mindset scores following the intervention. While most changes were not statistically significant, notable gains were found in achievement goals, self-regulatory tendencies, and competence-based emotional tendencies. Speaking test scores improved significantly, suggesting that even moderate shifts in mindset may contribute to better language performance. Q-methodology results further supported these findings by identifying three perspectives among students: one emphasizing effort and gradual skill development, another focusing on overcoming perceived talent deficits through self-regulation, and a third highlighting communication apprehension. Participants reported shifts in perspective, moving from a belief in fixed ability to a stronger recognition of the role of effort and practice in language development.

6.2 Implications of the Study

The implications of the study are presented in four subsections regarding each perspective: theoretical implications, methodological implications, contextual implications, and pedagogical implications.

6.2.1 Theoretical Implications

The findings of this study contribute to extending Lou and Noels' (2019a) framework by demonstrating the coexistence of growth-oriented and fixed mindset beliefs among Thai undergraduate students. Evidence from the survey, intervention activities, Q-methodology, and semi-structured interviews indicates that many students simultaneously held growth beliefs while retaining elements of fixed beliefs, such as attributing success to both effort and innate talent. This challenges binary conceptualization of mindset and supports the need for a more hybrid or multidimensional model. The presence of dual attribution aligns with Dörnyei's (2003) theory of learner self-concept, suggesting that learners' explanatory frameworks are shaped by their language proficiency levels and prior learning experiences.

The findings also highlight that different components of the mindset meaning system such as effort beliefs, attribution patterns, achievement goals, beliefs about mistakes and failure, self-regulatory tendencies, and competence-based

emotional tendencies, may function independently. These observations emphasize the necessity of adopting a multidimensional perspective to fully capture the complexity of language learning mindsets.

Persistent negative emotions, including anxiety and fear of judgment, were observed even among students who endorsed growth-oriented beliefs. This pattern suggests a limitation in existing mindset theories, which have often treated emotional experiences as secondary outcomes rather than integral components of the mindset-behavior relationship. Based on these findings, it is proposed that mindset theories should be expanded to explicitly incorporate emotional regulation as a mediating factor between beliefs and performance outcomes. Emotional vulnerability can constrain students' ability to act on growth beliefs, particularly in high-pressure speaking contexts where anxiety disrupts strategic behavior. Therefore, future theoretical models of mindset should integrate emotional regulation mechanisms to more accurately explain how beliefs translate into persistence, engagement, and achievement, especially in affectively demanding tasks such as foreign language speaking.

The results of the confirmatory factor analysis and the Q-methodology findings further indicated that students may adopt both fixed and growth beliefs simultaneously. Students encountering difficulties in foreign language speaking sometimes perceived their abilities as limited, expressing high levels of negative emotion. However, the belief in effort often served as a motivating force rather than a discouragement, encouraging persistence and strategy use. This suggests that fixed beliefs, when reframed alongside effort beliefs, can contribute positively to student motivation in the Thai context.

The observed fluctuations in students' mindset orientations, including shifts between growth and fixed profiles, support the conceptualization of mindset as a dynamic, context-dependent construct rather than a stable trait. This perspective aligns with Yeager and Dweck's (2020) emphasis on mindset fluidity and highlights the value of longitudinal research in capturing these temporal variations.

Finally, the weak correlation between growth mindset and speaking performance challenges assumptions that mindset alone directly predicts academic achievement (Blackwell, Trzesniewski, & Dweck, 2007; Drumgoole, 2021; McCutchen, Jones, Carbonneau, & Mueller, 2016). These findings suggest that mindset theories should incorporate mediating variables such as self-regulation strategies, emotional intelligence, and contextual supports to better explain the pathway from belief to performance. The results support Lou, Chaffee, and Noels (2022), who advocate for

holistic models that integrate cognitive, affective, and contextual dimensions in language learning.

These findings support the need to reconceptualize mindset as dynamic, multidimension system that integrates emotional regulation alongside cognitive and motivational components. Including emotional vulnerability and regulation mechanisms can enhance theoretical models by explaining how students' mindset translates or fails to translate into action, particularly in emotionally demanding tasks such as foreign language speaking. In addition to theoretical contribution, the study offers methodological insights which are discussed in the next section.

6.2.2 Methodological Implications

This study offers methodological contributions that can inform future research in the field of foreign language learning and language mindset development. One significant outcome is the development of the Foreign Language Speaking Mindset Inventory (FLSMI), a survey instrument specifically designed to assess learners' beliefs related to speaking in a foreign language. The FLSMI demonstrated strong reliability in the present study and holds potential for application to the context which is similar to the Thai EFL context. Researchers may employ this instrument to investigate speaking mindsets across diverse educational settings and learner populations, facilitating comparative studies that explore commonalities and differences in mindset patterns across cultural and linguistic backgrounds.

In addition to the development of the FLSMI, this study highlights the value of Q-methodology in examining students' domain-specific language mindsets. Q-methodology enabled the identification of shared belief patterns and individual differences, providing a structured yet flexible framework for capturing subjective experiences. Its combination of quantitative and qualitative approaches allowed for a richer understanding of students' motivations, emotional tendencies, and learning strategies. Future research may adopt Q-methodology to design interventions that are more responsive to learners' needs and to further explore the interaction between mindset beliefs, emotional regulation, and learning behaviors.

By integrating both a newly developed mindset inventory and the use of Q-methodology, this study demonstrates the importance of employing multiple methodological approaches to capture the dynamic nature of students' beliefs. These contributions support a more thorough investigation of the factors influencing foreign language speaking development and offer practical tools for advancing research and educational practice in the field of second language acquisition.

The integration of FLSMI and Q-methodology demonstrates the value of using diverse tools to investigate learner mindset from both quantitative and experiential perspectives. This approach provides a replicable and adaptable methodological framework for future research that aims to capture the dynamic of language mindset in various cultural and educational settings. Beyond methodological contribution, it is also essential to consider how the local cultural and educational environment shaped students' mindset. The following section discussed these contextual influences.

6.2.3 Contextual Implications

The findings of this study highlight that mindset development in foreign language learning is closely shaped by cultural and educational contexts. Thai undergraduate students showed both growth-oriented beliefs in effort and persistence, and fixed beliefs in the importance of innate talent. This pattern appeared across survey responses, Q-methodology perspectives, and guided journal reflections. It reflects the influence of Thailand's collectivist culture and exam-driven education system on students' language mindset and foreign language speaking mindset development.

The results also pointed to a strong short-term orientation toward academic success, shaped by high-stakes testing and institutional expectations. Many students focused on achieving immediate goals rather than building long-term communication skills. This pattern aligns with Hofstede's (2001) cultural dimensions, suggesting that learners' beliefs about ability and effort are closely tied to their educational environment.

Emotional challenges were another important finding. Students often reported anxiety, fear of judgment, and discomfort during speaking activities, even when they endorsed growth-oriented beliefs. This was visible in the survey results on emotional outcomes of attribution and in the qualitative data from guided journals. Such emotional tendencies suggest that environmental pressures within the education system contribute to emotional vulnerability among learners.

These findings imply that growth mindset interventions for Thai learners should be carefully adapted to local expectations and sensitivities. Teachers should consider students' need for short-term success and their fear of public evaluation. Reducing performance pressure, normalizing mistakes, and creating supportive classroom environments can encourage students to engage more confidently in speaking tasks.

At the institutional level, educational policies that prioritize standardized testing and teacher-centered approaches may unintentionally discourage risk-taking and strategy use. Integrating mindset principles into curricula that value effort, constructive feedback, and self-regulation could help balance institutional goals with students' individual needs. Creating classrooms that support both academic achievement and emotional safety will be key to helping learners develop more adaptive beliefs about their language learning potential.

These context-specific insights underscore the importance of adapting growth mindset intervention to different cultures and institutional structures. In Thai EFL context, where academic pressure, collectivist norm, and exam-oriented instruction strongly influence student motivation and emotion, culturally responsive interventions are essential. These context-specific findings provide an important foundation for informing classroom practice. The next section presents the pedagogical implications that can guide language instructors in supporting speaking performance and mindset development effectively.

6.2.4 Pedagogical Implications

The findings of this study offer several pedagogical implications for supporting student development in foreign language speaking and fostering growth-oriented learning environments. The results revealed that Thai undergraduate students often experienced persistent anxiety, fear of negative evaluation, and discomfort during speaking activities, even when they endorsed growth-oriented beliefs. Students also demonstrated a tendency to invest effort toward short-term performance goals rather than long-term communication development. These patterns highlight the need for targeted classroom strategies that address both cognitive and emotional aspects of language learning.

Promoting a growth mindset in the classroom requires more than encouraging students to accept mistakes. It involves guiding learners to set incremental goals, providing feedback that emphasizes individual progress, and creating structured opportunities for reflection. Teachers can support mindset development by designing practices that highlight personal improvement and reinforce the belief that speaking ability can be developed through consistent effort and strategy use.

Addressing emotional challenges is also crucial. To reduce anxiety and fear of judgment, educators can introduce low-stakes speaking activities such as short discussions, role-plays, and conversation circles. Group work, peer collaboration, and positive framing of mistakes can help normalize error-making and build communicative

confidence. Additionally, mindfulness practices or brief relaxation techniques before speaking tasks can assist students in managing emotional responses.

Strengthening students' self-regulation skills further supports speaking development. Explicit instruction in metacognitive strategies, including goal setting, self-monitoring, and reflective practices, can promote learner autonomy and resilience. Tools such as self-assessment checklists and structured journal writing can help students monitor their own progress and respond adaptively to challenges.

Feedback practices should be refined to encourage persistence and adaptation. Providing timely, constructive, and specific feedback that emphasizes effort and strategy use can motivate students to adjust their approaches. Incorporating peer and self-evaluation opportunities can reinforce the perception of feedback as a tool for learning rather than as a judgment of ability.

Finally, curriculum design should balance formal and informal speaking activities to create a supportive environment for oral skill development. Structured tasks such as debates and presentations can build students' confidence in academic communication, while informal activities such as spontaneous conversations, real-world simulations, and online discussions can create lower-pressure opportunities for language practice. A curriculum that integrates diverse speaking opportunities across different formats prepares students for authentic communication beyond the classroom.

These pedagogical implications suggest that promoting growth mindset alone is not sufficient to improve speaking performance. Classroom practice must address students' emotional needs, support the development of self-regulation skills, and provide structured, low-anxiety opportunities for speaking. Integrated approach can help students apply mindset principles more confidently in communicative settings.

6.3 Limitations

While the present study provided valuable insights into Thai undergraduate students' language and foreign language speaking mindsets, several limitations should be acknowledged. Firstly, although the Foreign Language Speaking Mindset Inventory (FLSMI) developed for this study demonstrated strong reliability and successfully captured students' emotional experiences related to speaking. It did not include items that directly assessed students' emotion regulation strategy. This perspective is important for understanding learners' emotion mechanism. Secondly, the study used short video-based interventions to promote mindset awareness and motivation. While

this approach showed some positive effects, it also had its limitations, as the results indicated only moderate changes in foreign language speaking. The language mindset intervention was integrated into regular classroom sessions as short warm-up activities lasting approximately 15 to 20 minutes. While this approach ensured consistent exposure to mindset content, it may not have sufficient depth for students to fully internalize or apply the concepts. The duration of the intervention was relatively short. This limited timeframe may have constrained the degree of mindset development possible.

6.4 Recommendations for Future Study

Future research could further enhance the FLSMI by incorporating items that assess emotion regulation strategies. This addition would provide an understanding how students manage affective responses during speaking activities and would offer a more complete view of their coping mechanisms and emotional resilience. This addition could also help researchers identify patterns in how regulation strategies interact with different emotional states and influence speaking performance, providing valuable guidance for instructional practices aimed at strengthening real-time emotion management in speaking-intensive language classrooms.

Moreover, future research could expand the video-based language mindset intervention by developing a series of interconnected brief videos or by incorporating interactive activities to enhance depth and learner engagement. Supplementary materials, such as handouts, quizzes, or discussion prompts, could also reinforce key ideas and foster deeper understanding. Balancing content richness with student attention remains an important consideration for the design of future instructional materials. Future implementations could benefit from providing dedicated, standalone sessions that allow more time for reflection, discussion, and practical activities. Spacing intervention sessions across a longer period may also help promote sustained changes in learners' beliefs and behaviors by supporting deeper engagement with the content. By addressing these areas, future research can further advance understanding of foreign language speaking mindsets, particularly regarding the role of emotional regulation and intervention timing.

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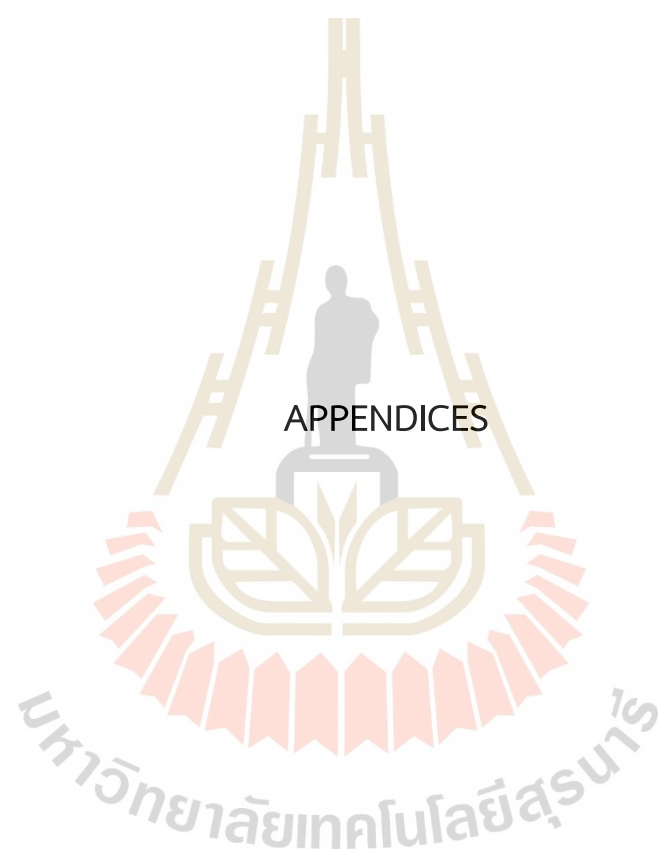
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APPENDIX A

Language Mindset Inventory (LMI) (Lou & Noels, 2019)

Please rate how much you personally agree or disagree with these statements. There is no right or wrong answer. 1 Strongly Disagree 2 Moderately Disagree 3 Slightly Disagree 4 Slightly Agree 5 Moderately Agree 6 Strongly Agree

โปรดให้คะแนนว่าคุณเห็นด้วยหรือไม่กับข้อความเหล่านี้มากน้อยเพียงใด ไม่มีคำตอบที่ถูกต้องหรือผิด 1 ไม่เห็นด้วยอย่างยิ่ง 2 ไม่เห็นด้วยปานกลาง 3 ไม่เห็นด้วยเล็กน้อย 4 เห็นด้วยเล็กน้อย 5 เห็นด้วยปานกลาง 6 เห็นด้วยอย่างยิ่ง

1. General language Intelligence Below are statements about language intelligence, the capacity to use spoken and written languages to express what's on your mind and to understand other people. People with high language intelligence are typically good at reading, writing, telling stories.

ความฉลาดทางภาษาทั่วไป ด้านล่างนี้คือข้อความเกี่ยวกับความฉลาดทางภาษา ความสามารถในการใช้ภาษาพูดและภาษาเขียนเพื่อแสดงความคิดของคุณและเพื่อทำความเข้าใจผู้อื่น คนที่มีความฉลาดทางภาษาสูงมักจะอ่าน เขียน เล่าเรื่องได้ดี

To be honest, you can't really change your language intelligence. พูดตามตรง คุณไม่สามารถเปลี่ยนความฉลาดทางภาษาได้จริงๆ

Your language intelligence is something about you that you can't change very much. ความฉลาดทางภาษาของคุณเป็นสิ่งที่你不能เปลี่ยนแปลงได้มากนัก

You have a certain amount of language intelligence, and you can't really do much to change it. คุณมีความฉลาดทางภาษาในระดับหนึ่ง และคุณไม่สามารถเปลี่ยนแปลงมันได้มากนัก

aYou can always improve your language intelligence substantially. คุณสามารถพัฒนาความฉลาดทางภาษาของคุณได้อย่างมาก

aNo matter who you are, you can significantly improve your language intelligence level. ไม่ว่าคุณจะเป็นใคร คุณก็สามารถพัฒนาระดับความฉลาดทางภาษาได้อย่างมาก

aNo matter how much language intelligence you have, you can always improve it quite a bit. ไม่ว่าคุณมีความฉลาดทางภาษามากแค่ไหน คุณก็สามารถพัฒนาให้ดีขึ้นได้เสมอ

2. Second Language Aptitude Below are statements about one's ability to learn new languages. People who are high in such ability are typically good at acquiring new sounds, grammatical structures, and vocabularies from new languages.

ความถนัดทางภาษาที่สอง ด้านล่างนี้คือข้อความเกี่ยวกับความสามารถในการเรียนรู้ภาษาใหม่ คนที่มีความสามารถดังกล่าวสูงมักเก่งในการเรียนรู้การออกเสียง โครงสร้างไวยากรณ์ และคำศัพท์จากภาษาใหม่

You can't change how capable you are at learning new languages.

คุณไม่สามารถเปลี่ยนความสามารถในการเรียนรู้ภาษาใหม่ๆ ได้

To be honest, you can't really change your basic ability to learn and use new languages.

พูดตามตรง คุณไม่สามารถเปลี่ยนความสามารถพื้นฐานในการเรียนรู้และใช้ภาษาใหม่ๆ ได้จริงๆ

To a large extent, your ability to learn new languages is innate and you can't change much.

ในภาพรวม ความสามารถในการเรียนรู้ภาษาใหม่ของคุณมีมาแต่กำเนิดและคุณไม่สามารถเปลี่ยนแปลงได้มากนัก

aYou can always improve how good you are at learning new languages.

คุณสามารถพัฒนาความเก่งในการเรียนรู้ภาษาใหม่ๆ ได้เสมอ

aNo matter who you are, you can always improve your basic ability to learn new languages.

ไม่ว่าคุณจะเป็นใคร คุณสามารถพัฒนาความสามารถพื้นฐานในการเรียนรู้ภาษาใหม่ๆ ได้เสมอ

aNo matter how much ability you have in learning new languages, you can improve it considerably.

ไม่ว่าคุณจะมีความสามารถในการเรียนรู้ภาษาใหม่มากเพียงใด คุณก็สามารถพัฒนาความสามารถของคุณได้อย่างมาก

3. Critical/Sensitive Period Hypothesis Below are statements about the ability to learn new languages in relation to age.

สมมติฐานช่วงอายุที่เอื้อต่อการเรียนภาษา ด้านล่างนี้คือข้อความเกี่ยวกับความสามารถในการเรียนรู้ภาษาใหม่ๆ ที่สัมพันธ์กับอายุ

After a certain young age, you have very limited ability to learn new languages.

หลังจากอายุยังน้อย คุณมีความสามารถจำกัดในการเรียนรู้ภาษาใหม่ๆ

You don't really have the ability to learn new languages after a certain young age.

คุณแทบไม่มีความสามารถในการเรียนรู้ภาษาใหม่หลังจากอายุยังน้อย

Your ability to learn new languages is restricted after a certain young age, and you can't really change it.

ความสามารถในการเรียนรู้ภาษาใหม่ของคุณถูกจำกัดหลังจากอายุยังน้อย และคุณไม่สามารถเปลี่ยนแปลงได้จริงๆ

aNo matter how old you are, you can always improve your ability to learn new languages.

ไม่ว่าคุณจะมีอายุเท่าไร คุณก็พัฒนาความสามารถในการเรียนรู้ภาษาใหม่ได้เสมอ

aRegardless of age, you can significantly improve how good you are at learning new languages.

คุณพัฒนาความเก่งในการเรียนรู้ภาษาใหม่ได้อย่างมาก โดยไม่ต้องคำนึงถึงอายุ

aEven after a certain young age, you can substantially improve your ability to learn new languages.

แม้หลังจากอายุยังน้อย คุณก็พัฒนาความสามารถในการเรียนรู้ภาษาใหม่ได้อย่างมาก



APPENDIX B

Foreign Language Speaking Mindset Inventory (FLSMI)

A. The original version and the revised version of the FLSMI

Developed version	Deleted items	Revised version
1. No matter how intelligent I am, I can always improve my speaking.		1. No matter how intelligent I am, I can always improve speaking a foreign language.
2. The more I try to learn speaking skills, the better I become.		2. The more I try to learn speaking a foreign language, the better I become.
3. I can learn the necessary skills to speak English by doing enough practice.		3. I can learn to speak a foreign language well by practicing enough.
4. As a language learner, I have limited aptitude to speak English and I cannot do anything to change and improve that.		4. As a language learner, I have limited ability to speak a foreign language and can't change it.*
5. Just a few people are capable of learning and improving their speaking and these people were born with this capacity and I am not one of them.		5. Only a few people can learn and get better at speaking a foreign language, and they were born with this ability. I'm not one of them.*
6. To be honest, I don't think I can improve my speaking skills.		6. To be honest, I don't think I can improve my ability to speak a foreign language.*
7. To tell the truth, when I work hard at improving my speaking, it makes me feel like I'm not very smart.		7. When speaking a foreign language is hard, it makes me want to practice more, not less.
8. It doesn't matter how hard I try if I am not smart in language, I won't do well in speaking.		8. The harder I practice, the better I will be at speaking a foreign language.
9. If I am not good at speaking, practicing hard won't make me good at it.		9. To tell the truth, when I try hard to improve my foreign language speaking, it makes me feel not very smart.*
10. If speaking is hard for someone, it means that he or she probably won't be able to do really well at it.		10. If I struggle with a difficult speaking task in a foreign language, I should try easier one.*
11. If I'm not doing well at speaking, it's better to try something easier.		11. I think I can improve to speak a foreign language well because of hard work.
12. When speaking is hard, it just makes me want to practice more on it, not less.		12. I may need to put effort to speak a foreign language well.
13. If I don't practice and put in a lot of effort in speaking, I probably won't do well.		13. I find it easier to speak a foreign language well because I put enough effort.

Developed version	Deleted items	Revised version
14. The harder I practice, the better I will be at speaking.		14. I think I can speak a foreign language well because I have a talent in learning foreign languages.*
15. If a speaking task is hard, it means I'll probably learn a lot doing it.		15. I may need a special talent to speak a foreign language well.*
16. I can improve to speak English well because I have a natural talent in learning languages.		16. I find it hard to speak a foreign language well because I am not good at languages.*
17. I may need a special talent to be able to speak English well.		17. I participate in foreign language speaking activities because I enjoy learning new speaking skills.
18. I find it hard to speak English well because I am not good at learning languages.		18. I like foreign language speaking activities that challenge me.
19. I may be able to speak English well if I practice hard.		19. I participate in foreign language speaking activities to improve my skills.
20. I may be able to speak English well if I put a lot of effort in speaking.	20. I may be able to speak English well if I put a lot of effort in speaking.	20. I participate in foreign language speaking activities to prove that I'm better at it than others in my class.*
21. I may be able to speak English well if I get more time for practicing.	21. I may be able to speak English well if I get more time for practicing.	21. I prefer foreign language speaking activities that are similar to tasks I've done before.*
22. I like speaking task that I will learn from, even though I make a lot of mistakes.		22. I participate in foreign language speaking activities so others in my class won't think I'm dumb.*
23. An important reason I do my speaking task is because I like to learn new speaking skills.		23. I might not participate in a foreign language speaking activity to avoid looking foolish when speaking.*
24. I like speaking task best when it really makes me think.		24. I like a foreign language speaking activity best when it is easy.*
25. An important reason I do my speaking task is because I want to get better at it.		25. When I am failing in speaking a foreign language, it means that I have to put more effort to improve my speaking.
26. I do my speaking task because I am interested in it.	26. I do my speaking task because I am interested in it.	26. When I am failing in speaking a foreign language, it means that I should find the other ways to practice my speaking.
27. I want to speak English better than the others in my classes.		27. When I am failing in speaking a foreign language, it means that I don't have enough talent in language learning.*

Developed version	Deleted items	Revised version
28. I like to show my lecturers that I can speak English better than the other students in my classes.	28. I like to show my lecturers that I can speak English better than the other students in my classes.	28. When I am failing in speaking a foreign language, it means that it is fruitless to practice speaking.*
29. Speaking English better than other students in my classes is important to me.		29. When I couldn't do a difficult foreign language speaking task, I will try to find what makes me unable to do it.
30. The reason I do speaking task in my English classes is so that others in the class won't think that I am dumb.	30. The reason I do speaking task in my English classes is so that others in the class won't think that I am dumb.	30. I feel good when I receive corrective feedback and criticisms on my speaking performance because they make my speaking better.
31. One reason I might not participate in speaking activities in my classes is to avoid looking dumb.		31. Even if I don't have talent in speaking a foreign language, I try to seek strategies to practice speaking.
32. One of my main goals in my English classes is to avoid looking like I can't do my speaking task.		32. When I couldn't do a difficult foreign language speaking task, it probably means that the task is beyond my level.*
33. It's very important to me that I don't look stupid when I speak or when I try to speak English in my classes.		33. I don't like corrective feedback and criticisms because it suggests that I am not good at speaking a foreign language.*
34. An important reason I do my speaking task is so I won't embarrass myself.	34. An important reason I do my speaking task is so I won't embarrass myself.	34. Trying new learning strategies is a waste of time if I do not have talent in speaking a foreign language.*
35. When I am failing in speaking, I am afraid that I might not have enough talent in language learning.		35. I am eager to speak a foreign language in my class.
36. When I am failing in speaking English, I expect to be criticized by my friends and my English teachers.		36. I feel comfortable when I speak a foreign language in front of my teacher and classmates.
37. When I am failing in speaking, it means that I have to put more effort to improve my speaking.		37. I don't worry that I may make some mistakes when I speak a foreign language.
38. When I am failing in speaking English, I expect to get feedback to improve my speaking.		38. Even if people don't understand when I speak, I am not afraid to speak a foreign language.
39. I don't have to seek for learning strategies, I am good at speaking.		39. I am afraid to speak in my foreign language classes.*
40. I don't have to seek for learning strategies, I am good at speaking.		40. I feel nervous when I have to speak a foreign language in front of my teacher and classmates.*

Developed version	Deleted items	Revised version
41. I wouldn't like feedback on my speaking when I speak.		41. I worry of making mistakes when I speak a foreign language.*
42. Practice speaking is a waste of time if I do not have the talent in speaking.		42. I am afraid people will not understand me when I speak a foreign language.*
43. Speaking is something I can't do on my own.		
44. I try to seek for learning strategies to improve my speaking.		
45. I would like feedback on my speaking to make my speaking better.		
46. Practice speaking on my own can make me get better at speaking.		
47. Speaking is something I can do by myself.		
48. I am afraid to speak English without preparation in my English classes.		
49. I feel nervous when I have to speak English in front of my teacher and classmates.		
50. I worry of making mistakes when I speak English.		
51. I am afraid people will not understand me when I speak English.		
52. I am eager to speak English in my English classes.		
53. I feel comfortable when I speak English in front of my teacher and classmates.		
54. I don't worry that I may make some mistakes when I speak English.		
55. Even if people don't understand when I speak, I am not afraid to speak English.		

B. Pilot version

Items	Translation
Part 1 General Information	
1. What is your gender?	เพศ
2. What is your current year of study?	ปีการศึกษา
3. What is your major of study?	สาขาวิชา
4. What is your English language proficiency level according to the Common European Framework of Reference (CEFR)?	ระดับความสามารถทางภาษาอังกฤษอ้างอิงตาม CEFR
5. What is your perceived English language proficiency in speaking?	ระดับความสามารถทางภาษาอังกฤษในการพูด
Part 2 Speaking Mindset Inventory	
1. No matter how intelligent I am, I can always improve speaking a foreign language.	ไม่ว่าฉันจะฉลาดแค่ไหนฉันก็พัฒนาการพูดภาษาอังกฤษได้เสมอ
2. The more I try to learn speaking a foreign language, the better I become.	ยิ่งฉันพยายามเรียนรู้การพูดภาษาอังกฤษมากเท่าไรฉันก็ยิ่งพูดได้ดีขึ้นเท่านั้น
3. I can learn to speak a foreign language well by practicing enough.	ฉันสามารถเรียนรู้ที่จะพูดภาษาอังกฤษได้ดีโดยการฝึกฝนให้เพียงพอ
4. As a language learner, I have limited ability to speak a foreign language and can't change it.*	ในฐานะผู้เรียนภาษา ฉันมีความสามารถในการพูดภาษาอังกฤษที่จำกัดและไม่สามารถเปลี่ยนแปลงได้*
5. Only a few people can learn and get better at speaking a foreign language, and they were born with this ability. I'm not one of them.*	มีเพียงไม่กี่คนเท่านั้นที่สามารถเรียนรู้และพัฒนาการพูดภาษาอังกฤษให้ดีขึ้นได้ พวกเขาเกิดมาพร้อมกับความสามารถนี้ ฉันไม่ใช่หนึ่งในนั้น
6. To be honest, I don't think I can improve my ability to speak a foreign language.*	บอกตามตรง ฉันไม่คิดว่าฉันจะพัฒนาความสามารถในการพูดภาษาอังกฤษได้
7. When speaking a foreign language is hard, it makes me want to practice more, not less.	เมื่อการพูดภาษาอังกฤษเป็นเรื่องยาก มันทำให้ฉันต้องการฝึกฝนมากขึ้น
8. The harder I practice, the better I will be at speaking a foreign language.	ยิ่งฉันฝึกฝนมากเท่าไร ฉันก็ยิ่งพูดภาษาอังกฤษได้ดีขึ้นเท่านั้น
9. To tell the truth, when I try hard to improve my foreign language speaking, it makes me feel not very smart.*	ความจริงแล้ว เมื่อฉันพยายามอย่างหนักเพื่อพัฒนาการพูดภาษาอังกฤษ มันทำให้ฉันรู้สึกว่าตัวเองไม่ฉลาดเลย
10. If I struggle with a difficult speaking task in a foreign language, I should try easier one.*	ถ้าฉันต้องพยายามฝึกพูดภาษาอังกฤษในหัวข้อยากๆ ฉันควรลองฝึกหัวข้อที่ง่ายกว่านี้
11. I think I can improve to speak a foreign language well because of hard work.	ฉันคิดว่าฉันพัฒนาตัวเองจนพูดภาษาอังกฤษได้ดีเพราะฉันพยายามอย่างหนัก
12. I may need to put effort to speak a foreign language well.	ฉันอาจต้องใช้ความพยายามเพื่อให้ตัวเองพูดภาษาอังกฤษได้ดี
13. I find it easier to speak a foreign language well because I put enough effort.	ฉันพบว่าพูดภาษาอังกฤษได้ดีนั้นเป็นเรื่องง่ายหากฉันพยายามมากพอ
14. I think I can speak a foreign language well because I have a talent in learning foreign languages.*	ฉันคิดว่าฉันสามารถพูดภาษาอังกฤษได้ดีเพราะฉันมีพรสวรรค์ในการเรียนรู้ภาษาต่างประเทศ
15. I may need a special talent to speak a foreign language well.*	ฉันอาจต้องมีพรสวรรค์ (talent) เพื่อให้ตัวเองพูดภาษาอังกฤษได้ดี
16. I find it hard to speak a foreign language well because I am not good at languages.*	ฉันพบว่ามันยากที่จะพูดภาษาอังกฤษได้ดีเพราะฉันไม่เก่งภาษา
17. I participate in foreign language speaking activities because I enjoy learning new speaking skills.	ฉันมีส่วนร่วมในกิจกรรมการพูดภาษาอังกฤษเพราะฉันสนุกกับการเรียนรู้ทักษะการพูดใหม่ ๆ

Items	Translation
18. I like foreign language speaking activities that challenge me.	ฉันชอบกิจกรรมการพูดภาษาอังกฤษที่ท้าทาย
19. I participate in foreign language speaking activities to improve my skills.	ฉันมีส่วนร่วมในกิจกรรมการพูดภาษาอังกฤษเพื่อพัฒนาทักษะของฉัน
20. I participate in foreign language speaking activities to prove that I'm better at it than others in my class.*	ฉันมีส่วนร่วมในกิจกรรมการพูดภาษาอังกฤษเพื่อพิสูจน์ว่าฉันเก่งกว่าคนอื่น ๆ ในชั้นเรียนของฉัน *
21. I prefer foreign language speaking activities that are similar to tasks I've done before.*	ฉันชอบกิจกรรมการพูดภาษาอังกฤษที่คล้ายกับกิจกรรมที่ฉันเคยทำมาก่อน
22. I participate in foreign language speaking activities so others in my class won't think I'm dumb.*	ฉันร่วมกิจกรรมพูดภาษาอังกฤษเพื่อให้คนอื่น ๆ ในชั้นเรียนไม่คิดว่าฉันโง่
23. I might not participate in a foreign language speaking activity to avoid looking foolish when speaking.*	ฉันอาจไม่ร่วมกิจกรรมพูดภาษาอังกฤษเพื่อหลีกเลี่ยงการดูโง่เขลาเมื่อพูดภาษาอังกฤษ
24. I like a foreign language speaking activity best when it is easy.*	ฉันชอบกิจกรรมการพูดภาษาอังกฤษที่สุดเมื่อมันง่าย
25. When I am failing in speaking a foreign language, it means that I have to put more effort to improve my speaking.	เมื่อฉันล้มเหลวในการพูดภาษาอังกฤษหมายความว่าฉันต้องใช้ความพยายามมากขึ้นเพื่อปรับปรุงการพูดของฉัน
26. When I am failing in speaking a foreign language, it means that I should find the other ways to practice my speaking.	เมื่อฉันล้มเหลวในการพูดภาษาอังกฤษหมายความว่าฉันควรหาวิธีอื่นในการฝึกพูดของฉัน
27. When I am failing in speaking a foreign language, it means that I don't have enough talent in language learning.*	เมื่อฉันล้มเหลวในการพูดภาษาอังกฤษหมายความว่าฉันมีความสามารถไม่เพียงพอในการเรียนภาษา
28. When I am failing in speaking a foreign language, it means that it is fruitless to practice speaking.*	เมื่อฉันล้มเหลวในการพูดภาษาอังกฤษหมายความว่า การฝึกพูดไม่มีผล
29. When I couldn't do a difficult foreign language speaking task, I will try to find what makes me unable to do it.	เมื่อฉันไม่สามารถพูดภาษาอังกฤษหัวข้อยาก ๆ ได้ ฉันจะพยายามหาว่าอะไรทำให้ฉันไม่สามารถพูดได้
30. I feel good when I receive corrective feedback and criticisms on my speaking performance because they make my speaking better.	ฉันรู้สึกดีเมื่อได้รับข้อเสนอแนะและคำวิจารณ์เกี่ยวกับการพูดของฉัน เพราะมันทำให้การพูดของฉันดีขึ้น
31. Even if I don't have talent in speaking a foreign language, I try to seek strategies to practice speaking.	แม้ว่าฉันจะไม่มีความสามารถในการพูดภาษาอังกฤษฉันพยายามหาวิธีฝึกพูด
32. When I couldn't do a difficult foreign language speaking task, it probably means that the task is beyond my level.*	เมื่อฉันไม่สามารถพูดภาษาอังกฤษหัวข้อยาก ๆ ได้ อาจหมายความว่างานเกินระดับของฉัน
33. I don't like corrective feedback and criticisms because it suggests that I am not good at speaking a foreign language.*	ฉันไม่ชอบข้อเสนอแนะและคำวิจารณ์เพราะมันแสดงให้เห็นว่าฉันพูดภาษาอังกฤษไม่เก่ง
34. Trying new learning strategies is a waste of time if I do not have talent in speaking a foreign language.*	การลองใช้กลยุทธ์การเรียนรู้ใหม่ ๆ เป็นการเสียเวลาถ้าฉันไม่มีพรสวรรค์ในการพูดภาษาอังกฤษ
35. I am eager to speak a foreign language in my class.	ฉันกระตือรือร้นที่จะพูดภาษาอังกฤษในชั้นเรียนของฉัน
36. I feel comfortable when I speak a foreign language in front of my teacher and classmates.	ฉันรู้สึกสบายใจเมื่อฉันพูดภาษาอังกฤษต่อหน้าครูและเพื่อนร่วมชั้น
37. I don't worry that I may make some mistakes when I speak a foreign language.	ฉันกังวลว่าฉันอาจทำผิดพลาดเมื่อฉันพูดภาษาอังกฤษ

Items	Translation
38. Even if people don't understand when I speak, I am not afraid to speak a foreign language.	แม้คนอาจไม่เข้าใจที่ฉันพูด ฉันก็ไม่กลัวที่จะพูดภาษาอังกฤษ
39. I am afraid to speak in my foreign language classes.*	ฉันกลัวที่จะพูดในห้องเรียนวิชาภาษาอังกฤษ
40. I feel nervous when I have to speak a foreign language in front of my teacher and classmates.*	ฉันรู้สึกประหม่าเมื่อต้องพูดภาษาอังกฤษต่อหน้าครูและเพื่อนร่วมชั้น
41. I worry of making mistakes when I speak a foreign language.*	ฉันกังวลเกี่ยวกับการทำผิดพลาดเมื่อฉันพูดภาษาอังกฤษ
42. I am afraid people will not understand me when I speak a foreign language.*	ฉันกลัวว่าผู้คนจะไม่เข้าใจฉันเมื่อฉันพูดภาษาอังกฤษ
Part 3 Perception on the technical aspect of the survey	
1. Are the instruction clear?	คำชี้แจงของแบบสอบถามชัดเจนหรือไม่
2. Is the survey easy to navigate?	รูปแบบของแบบสอบถาม ช่วยให้ง่ายต่อการตอบแบบสอบถามหรือไม่
3. Are there too many items on one page?	จำนวนข้อต่อหนึ่งหน้าแบบสอบถามมากเกินไปหรือไม่
4. Are there any items that you don't understand?	มีข้อความที่อ่านแล้วไม่เข้าใจหรือไม่
5. How are the items difficult to understand?	ข้อความอ่านยากอย่างไร
a. Use too much technical terminology	a. ใช้ศัพท์เทคนิคมากเกินไป
b. The wording is ambiguous	b. การใช้คำกำกวม
c. The statement is too long	c. ข้อความยาวเกินไป
d. The statement is what I have never considered before	d. ไม่เคยนึกถึงเรื่องนี้มาก่อน

C. Foreign Language Speaking Mindset Inventory

Items	Translation
Part 1 General Information	
1. What is your gender?	เพศ
2. What is your current year of study?	ปีการศึกษา
3. What is your major of study?	สาขาวิชา
4. What is your English language proficiency level according to the English Placement Test?	ระดับความสามารถทางภาษาอังกฤษอ้างอิงตามการสอบวัดระดับภาษา
Part 2 Language Mindset Inventory	
1. No matter how much language intelligence you have, you can always improve it quite a bit.	ไม่ว่าคุณมีความฉลาดทางภาษามากแค่ไหน คุณก็สามารถพัฒนาให้ดีขึ้นได้เสมอ
2. You can't change how capable you are at learning new languages.	คุณไม่สามารถเปลี่ยนความสามารถในการเรียนรู้ภาษาใหม่ๆ ได้
3. No matter how old you are, you can always improve your ability to learn new languages.	ไม่ว่าคุณจะมีอายุเท่าไร คุณก็พัฒนาความสามารถในการเรียนรู้ภาษาใหม่ได้เสมอ
Part 3 Foreign Language Speaking Mindset Inventory	
1. As a language learner, I have limited ability to speak a foreign language and can't change it.*	ในฐานะผู้เรียนภาษา ฉันมีความสามารถในการพูดภาษาอังกฤษที่จำกัด และไม่สามารถเปลี่ยนแปลงได้*
2. Only a few people can learn and get better at speaking a foreign language, and they were born with this ability. I'm not one of them.*	มีเพียงไม่กี่คนเท่านั้นที่สามารถเรียนรู้และพูดภาษาอังกฤษได้ดีขึ้น และพวกเขาเกิดมาพร้อมกับความสามารถนี้ ฉันไม่ใช่หนึ่งในนั้น
3. To be honest, I don't think I can improve my ability to speak a foreign language.*	บอกตามตรง ฉันไม่คิดว่าฉันจะพัฒนาความสามารถในการพูดภาษาอังกฤษได้

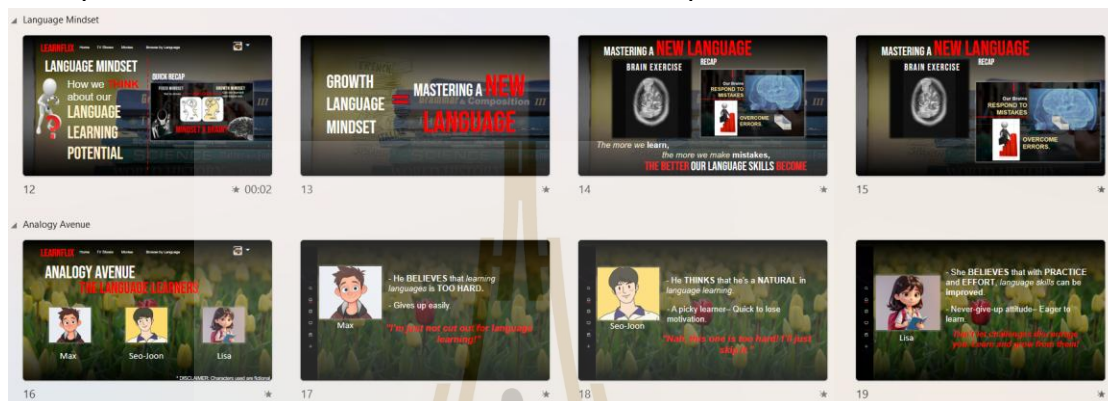
Items	Translation
4. The harder I practice, the better I will be at speaking a foreign language.	ยิ่งฉันฝึกฝนมากเท่าไร ฉันก็ยิ่งพูดภาษาอังกฤษได้ดีขึ้นเท่านั้น
5. To tell the truth, when I try hard to improve my foreign language speaking, it makes me feel not very smart.*	ความจริงแล้ว เมื่อฉันพยายามอย่างหนักเพื่อพัฒนาการพูดภาษาอังกฤษ มันทำให้ฉันรู้สึกว่าคุณเองไม่ฉลาดเลย
6. I think I can improve to speak a foreign language well because of hard work.	ฉันคิดว่าฉันสามารถพัฒนาจนพูดภาษาอังกฤษได้ดีเพราะฉันพยายามอย่างหนัก
7. I may need a special talent to speak a foreign language well.*	ฉันอาจต้องมีความสามารถพิเศษเพื่อให้ตัวเองพูดภาษาอังกฤษได้ดี
8. I find it hard to speak a foreign language well because I am not good at languages.*	ฉันพบว่ามันยากที่จะพูดภาษาอังกฤษได้ดีเพราะฉันไม่เก่งภาษา
9. I participate in foreign language speaking activities because I enjoy learning new speaking skills.	ฉันมีส่วนร่วมในกิจกรรมการพูดภาษาอังกฤษเพราะฉันสนุกกับการเรียนรู้ทักษะการพูดใหม่ ๆ
10. I like foreign language speaking activities that challenge me.	ฉันชอบกิจกรรมการพูดภาษาอังกฤษที่ท้าทาย
11. I participate in foreign language speaking activities to improve my skills.	ฉันมีส่วนร่วมในกิจกรรมการพูดภาษาอังกฤษเพื่อพัฒนาทักษะของฉัน
12. I might not participate in a foreign language speaking activity to avoid looking foolish when speaking.*	ฉันอาจไม่ร่วมกิจกรรมพูดภาษาอังกฤษเพื่อหลีกเลี่ยงการดูโง่เขลาเมื่อพูดภาษาอังกฤษ
13. When I am failing in speaking a foreign language, it means that I don't have enough talent in language learning.*	เมื่อฉันล้มเหลวในการพูดภาษาอังกฤษหมายความว่าฉันมีความสามารถไม่เพียงพอในการเรียนภาษา
14. When I am failing in speaking a foreign language, it means that it is fruitless to practice speaking.*	เมื่อฉันล้มเหลวในการพูดภาษาอังกฤษหมายความว่า การฝึกพูดไม่มีผล
15. When I couldn't do a difficult foreign language speaking task, it probably means that the task is beyond my level.*	เมื่อฉันไม่สามารถพูดภาษาอังกฤษตามแบบฝึกหัดยากๆ ได้ อาจหมายความว่างานนั้นเกินระดับของฉัน
16. I don't like corrective feedback and criticisms because it suggests that I am not good at speaking a foreign language.*	ฉันไม่ชอบข้อเสนอแนะและคำวิจารณ์เพราะมันแสดงให้เห็นว่าฉันไม่เก่งในการพูดภาษาอังกฤษ
17. Even if I don't have talent in speaking a foreign language, I try to seek strategies to practice speaking.	แม้ว่าฉันจะไม่มีความสามารถในการพูดภาษาอังกฤษฉันพยายามหาวิธีฝึกพูด
18. I am afraid to speak in my foreign language classes.*	ฉันกลัวที่จะพูดในชั้นเรียนภาษาอังกฤษ
19. I feel nervous when I have to speak a foreign language in front of my teacher and classmates.*	ฉันรู้สึกประหม่าเมื่อต้องพูดภาษาอังกฤษต่อหน้าครูและเพื่อนร่วมชั้น
20. I worry of making mistakes when I speak a foreign language.*	ฉันกังวลเกี่ยวกับการทำผิดพลาดเมื่อฉันพูดภาษาอังกฤษ
21. I am afraid people will not understand me when I speak a foreign language.*	ฉันกลัวว่าคนจะไม่เข้าใจฉันเมื่อฉันพูดภาษาอังกฤษ

APPENDIX C

Mindset Toolkit

A. Example of the Language Mindset Video Toolkit

Example of EP1: The Formula “Mindset and Brainpower”





Example of EP2: Mindset Matters




Example of EP3: Unveiling Secrets

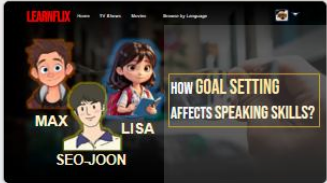
Goal Approach


8  00:10


9  01:21

10  *

Goal Setting


11  00:02


12  00:37


13  00:13


Example of EP4: Embracing Bumps

Goal Approach

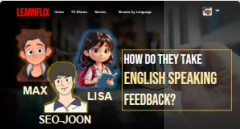
8  00:09


9  00:33


10  *


11  00:32

Interpreting Feedback

12  00:07


13  00:26


14  00:21

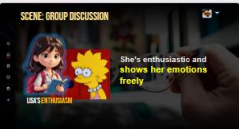
15  00:05


Example of EP5: Connecting the Dots

Goal Approach


8  00:21


9  00:35


10  00:18


11  00:23

Adjustments

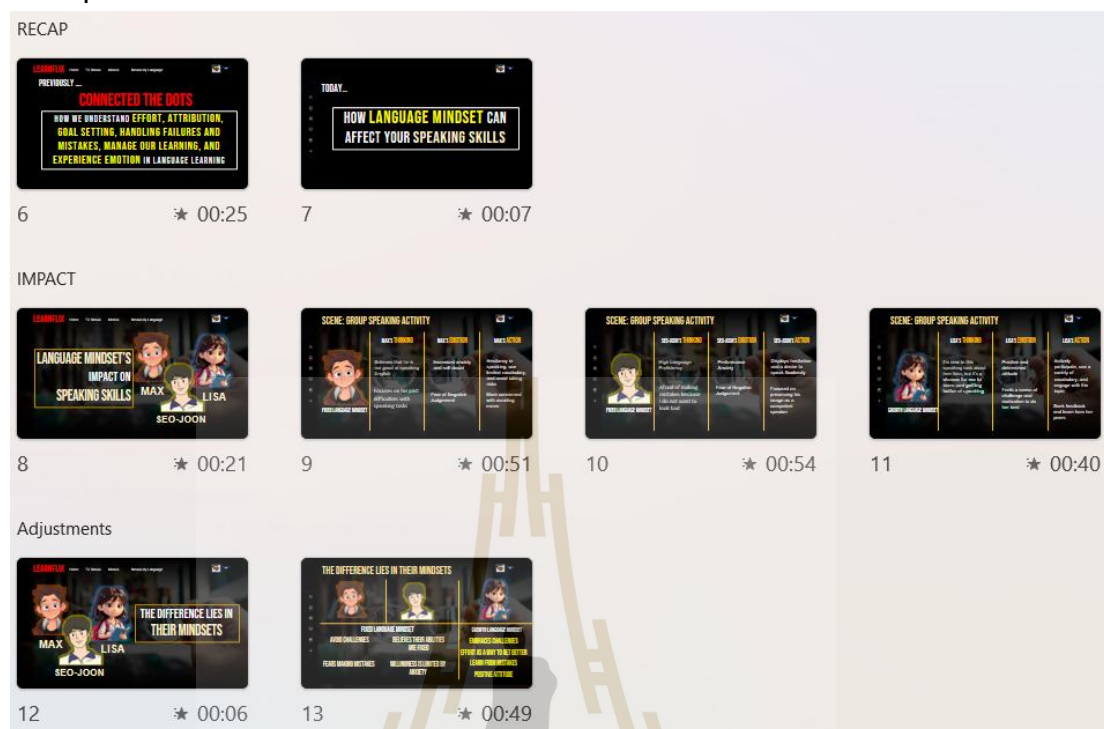
12  00:09

13  00:40

14  00:30

15  00:28

Example of EP6: Unlock Your Potential



B. Guided Journal

1) Session 1

กรุณาเขียนบันทึกสั้นๆ ตามแบบบันทึกดังนี้

1. กรอบความคิด (mindset) คือ
2. “กรอบความคิดสามารถส่งผลต่อความยืดหยุ่นของสมอง (brain plasticity)” ข้อความนี้มีความสัมพันธ์กับศักยภาพในการเรียนภาษาของฉัน โดยฉันเข้าใจว่า
3. ฉันคิดว่าตัวเองมีกรอบความคิดการเรียนรู้ภาษา (language mindset) แบบซึ่งคล้ายกับ แม็กซ์/ซอจุน/ลิซ่า/ไม่เหมือนทั้ง 3 คน เพราะว่า
4. หลังจากดูวิดีโอในวันนี้ ฉันคิดว่ามีผลต่อความสามารถในการเรียนภาษาและทักษะการพูดภาษาต่างประเทศของฉัน
5. ที่ผ่านมามีเจอปัญหาในการเรียนภาษา ฉันมักจะ
6. ฉันคิดว่า ฉันสามารถพัฒนากรอบความคิด growth mindset ในการเรียนภาษาได้ โดย

2) Session 2

กรุณาเขียนบันทึกสั้นๆ ตามแบบบันทึกดังนี้

1. ฉันคิดว่า ฉันมีกรอบความคิดการพูดภาษาอังกฤษ (FL speaking mindset) แบบ
2. เคย/ไม่เคย มีเหตุการณ์ที่ทำให้ฉันคิดว่าความสามารถการพูดของฉันมีจำกัด (หากเคยโปรดเขียนบันทึกต่อจากนี้) นั่นคือตอนที่

3. เมื่อเจอปัญหาเกี่ยวกับการพูดภาษาอังกฤษ เช่น ปัญหาเกี่ยวกับแกรมมาร์หรือการออกเสียง ฉันมักจะ
4. ฉันคิดว่าหากฉันพยายามมากขึ้น ทักษะการพูดภาษาอังกฤษของฉันจะ
5. ฉัน เคย/ไม่เคย คิดว่าความล้มเหลวในการพูดภาษาอังกฤษเกิดจากการที่ฉันขาดพรสวรรค์ทางภาษา
6. เมื่อการพูดภาษาอังกฤษไม่เป็นอย่างที่คิด ฉันคิดว่าเป็นเพราะ
7. ฉันจึง
8. การมีกรอบหมายเซต (growth mindset) จะส่งผลต่อการพัฒนาทักษะการพูดภาษาอังกฤษของฉันโดย
9. ฉันจะสามารถพัฒนาตัวเองให้มีกรอบหมายเซตเกี่ยวกับการพูด (FL speaking mindset) ได้โดย

3) Session 3

กรุณาเขียนบันทึกสั้นๆ ตามแบบบันทึกดังนี้

1. เป้าหมายในการเรียนภาษาและการพัฒนาทักษะการพูดของฉันคือ
2. เป้าหมายในการเรียนภาษาและการพัฒนาทักษะการพูดของฉันเป็น เป้าหมายที่เน้นผลลัพธ์/เป้าหมายที่เน้นการเรียนรู้
3. ในกิจกรรมการพูดภาษาอังกฤษ ฉันมักจะ เพราะว่า
4. เมื่อฉันเรียนรู้ภาษาในหัวข้อใหม่ๆ และฉันรู้สึกว่าการหัดนั้นยาก ฉัน เคย/ไม่เคย รู้สึกท้อแท้ เพราะฉันคิดว่า
5. ฉันคิดว่าตัวเองมีเป้าหมายในการเรียนภาษาและการพัฒนาทักษะการพูดคล้ายกับ แม็กซ์/ซอจุน/ลิซ่า/ไม่เหมือนทั้ง 3 คน เพราะว่า
6. หลังจากดูวิดีโอ ฉันคิดว่า หากฉันจะตั้งเป้าหมายในการเรียนภาษาและการพัฒนาทักษะการพูด เป้าหมายของฉันคือ
7. ฉันคิดว่ากรอบความคิด (mindset) และการตั้งเป้าหมาย มีผลต่อ/ไม่มีผลต่อ การเรียนภาษาและการพัฒนาทักษะการพูดของฉัน
8. ฉันคิดว่า ความสามารถในการพูดภาษาอังกฤษของฉัน.....

4) Session 4

กรุณาเขียนบันทึกสั้นๆ ตามแบบบันทึกดังนี้

1. เวลาที่ทำผิดพลาดตอนพูดภาษาอังกฤษหรือพูดภาษาอังกฤษไม่ได้ ฉันรู้สึก
2. สิ่งส่งผลต่อความมั่นใจและความคล่องในการพูดภาษาอังกฤษของฉัน คือ
3. ฉันคิดว่าคำติชม (feedback) เป็น
4. คำติชม (feedback) เกี่ยวกับการพูดภาษาอังกฤษของฉัน ทำให้ฉันมองตัวเองว่า
5. ฉันจัดการกับความผิดพลาดหรือความล้มเหลวในการเรียนภาษาและการพูดภาษาอังกฤษของตัวเองโดย

6. ฉันคิดว่า ฉันมีความคิดคล้ายกับ แม็กซ์/ซอจุน/ลิซ่า/ไม่เหมือนทั้ง 3 คน เพราะ ฉันคิดว่า ความผิดพลาดหรือความล้มเหลวในการเรียนภาษาและการพัฒนาทักษะการพูดของฉัน คือ
7. หลังจากชมวิดีโอ ฉันจะ ลองเปลี่ยน / ไม่เปลี่ยน วิธีการจัดการกับความผิดพลาดหรือ ความล้มเหลวในการเรียนภาษาของฉันโดย
8. ฉันคิดว่า ความสามารถในการพูดภาษาอังกฤษของฉัน

5) Session 5

กรุณาเขียนบันทึกสั้นๆ ตามแบบบันทึกดังนี้

1. ตอนที่ต้องพูดภาษาอังกฤษในห้องเรียน ฉันมักจะรู้สึก อารมณ์เหล่านี้ ส่งผลต่อการร่วมกิจกรรมในห้องเรียนและความมั่นใจของฉัน โดยทำให้ฉัน
2. สถานการณ์ที่อารมณ์ส่งผลต่อการร่วมกิจกรรมการพูดภาษาอังกฤษของฉัน คือตอน
3. ฉันคิดว่าตัวเองคล้ายกับ แม็กซ์/ซอจุน/ลิซ่า/ไม่เหมือนทั้ง 3 คน ตอนที่ฉันต้องร่วม กิจกรรมการพูดภาษาอังกฤษ เพราะว่า
4. ฉันเคยใช้วิธีการต่างๆ เพื่อเรียนรู้การพูดภาษาอังกฤษทั้งในห้องเรียน และนอกห้องเรียน ดังนี้
5. ฉัน เคยขอความช่วยเหลือ/ไม่เคยขอความช่วยเหลือ จากเพื่อนหรือครูเกี่ยวกับการพูด ภาษาอังกฤษของฉัน
6. ฉัน เคย/ไม่เคย ตั้งเป้าหมายว่าอยากสอบผ่านเพียงอย่างเดียว
7. (เลือกตอบ 1) หรือ 2))
หากคิดถึงการจัดการอารมณ์ของตัวเองเวลาเรียนภาษา ฉันคิดว่าตัวเอง 1) มักกังวลและ ไม่สามารถลดความวิตกกังวลได้เพราะ
หรือ 2) มักกังวลแต่ก็พยายามลดความกังวลด้วยการ
8. หลังจากชมวิดีโอ ฉันคิดว่า จะ ปรับ/ไม่ปรับ กลยุทธ์การเรียนภาษาของตัวเอง เพื่อ พัฒนาการจัดการกับอารมณ์ด้านลบและจัดการการเรียนรู้ของตัวเองโดย
9. ฉันคิดว่า ความสามารถในการพูดภาษาอังกฤษของฉัน

6) Session 6

กรุณาเขียนบันทึกสั้นๆ ตามแบบบันทึกดังนี้

1. ฉัน ลังเลเมื่อต้องเข้าร่วมกิจกรรมการพูดภาษาอังกฤษ / พร้อมรับความท้าทายใน กิจกรรมการพูดภาษาอังกฤษ
2. กรอบความคิด (mindset) ของฉัน ส่งผลต่อการร่วมกิจกรรมการพูดภาษาอังกฤษโดย (เช่น ทำให้ไม่อยากเข้าร่วม ทำให้กลัวการเข้าร่วม ทำให้อยากเข้าร่วม)
3. เมื่อต้องเข้าร่วมกิจกรรมการพูดภาษาอังกฤษ ฉันมักรู้สึก (เช่น กลัว ประหม่า เฉยๆ) ในสถานการณ์นั้น อารมณ์ของฉัน ส่งผลให้ฉัน (เช่น พูดไม่ออก ตะกุกตะกัก)
4. ฉันคิดว่า ตัวเองคล้ายกับ แม็กซ์/ซอจุน/ลิซ่า/ไม่เหมือนทั้ง 3 คน เวลาทำกิจกรรมการ พูด เพราะ

ฉันคิดว่าตัวเอง (เช่น พูดได้ พูดไม่ได้)

ฉันรู้สึกเมื่อต้องพูดภาษาอังกฤษ

(เลือกบรรยายหัวข้อ เข้าร่วม หรือ หลีกเลี่ยง)

ฉันเข้าร่วมกิจกรรมการพูดภาษาอังกฤษอย่าง

ฉันหลีกเลี่ยงกิจกรรมการพูดภาษาอังกฤษอย่าง

5. กรอบความคิด (mindset) ของฉันส่งผลเวลาที่ฉันทำกิจกรรมการพูดภาษาอังกฤษ โดยทำให้ฉัน (การกระทำ เช่น พยายามถามตอบ หลีกเลี่ยงการถามตอบ).....
6. หลังจากชมวิดีโอ ฉันคิดว่าแนวทางในการพัฒนาหรือเพิ่มพูนทักษะการพูดภาษาอังกฤษของฉัน คือ
7. ฉันคิดว่า ความสามารถในการพูดภาษาอังกฤษของฉัน
8. ปัจจัย คือสิ่งที่ทำให้ฉันคิดว่า ความสามารถในการพูดภาษาอังกฤษของฉัน พัฒนาได้ / พัฒนาได้ยากหรือแทบไม่ได้เลย

C. The Validation of the Language Mindset Toolkit by Experts

Topic	Expert 1	Expert 2	Comments
1. Content			
The content of the language mindset toolkit corresponds to the objectives of the study.	1	1	จุดประสงค์การวิจัย (ข้อ 2) เพื่อศึกษาการเปลี่ยนแปลงได้ของกรอบความคิด โดยใช้ The Language Mindset Toolkit จำนวน 6 ตอน เป็นเครื่องมือวิจัย และเนื้อหาในคลิปนี้ได้มีกิจกรรมให้นิสิตรับรู้และเข้าใจเรื่อง Mindset และเห็นความแตกต่างระหว่าง Fixed Mindset และ Growth Mindset อย่างชัดเจน ข้อเสนอแนะ ควรมีเนื้อหา/กิจกรรมเพื่อให้นิสิตได้รับรู้และสะท้อน Mindset ตนเองว่า Fixed Mindset ด้านใดบ้าง และมี Growth Mindset ด้านใดบ้างในแต่ละตอน และการสะท้อนถึงแนวทางการปรับ Fixed Mindset ให้เป็น Growth Mindset ให้เป็น Mindset ใหม่ของตนเองได้ จะทำให้แสดงถึงความเป็นเหตุเป็นผลของตัวแปรต้นและตัวแปรตามได้ชัดเจนขึ้น
The language mindset toolkit facilitates delivery of the message.	1	1	
The language mindset toolkit allows understanding of the topic.	1	1	
2. Relevance			
The language mindset toolkit is relevant to aid the students to understand the language and foreign language speaking mindset.	1	1	
The language mindset toolkit allows the transfer and generalization of learned content to the students' contexts.	1	1	
The language mindset toolkit is suitable for the topic.	1	1	
3. Non-verbal and verbal language			
The verbal language is easy to understand.	1	1	

Topic	Expert 1	Expert 2	Comments
The subtitles are easy to read	1	1	
The speaker's tone and voice are clear and appropriate.	1	1	
Non-verbal language aids comprehension of the topic about language and foreign language speaking mindset.	1	1	
4. Functionality			
The language mindset toolkit gives adequate examples of language mindset and speaking mindset for the purpose of message delivery.	1	1	ตัวอย่างเป็นตัวละคร 3 ตัว ที่สะท้อนให้เห็นความแตกต่างของ Mindset ที่ส่งผลต่อระบบคิด ความรู้สึก และพฤติกรรมที่ต่างกันอย่างชัดเจน ข้อเสนอแนะ ในส่วนนี้ควรเพิ่มตัวอย่างที่เป็นผลกระทบทางบวกของบุคคลที่มี Growth Mindset และผลกระทบทางลบของบุคคลที่มี Fixed Mindset เพื่อให้เห็นชัดเจนถึงผลกระทบที่ส่งผลต่อความคิด ความรู้สึก และพฤติกรรมได้ชัดเจนมากขึ้น
5. Efficiency			
The length of the video is appropriate.	1	1	ระยะเวลาปรับให้เหมาะสมกับเนื้อหาและกิจกรรมเพื่อให้ครอบคลุมจุดประสงค์ของเครื่องมือ
The language mindset toolkit has clear visual and good sound quality.	1	1	
Total	1	1	

D. The Validation of the Language Mindset Toolkit by Target Audience (4 Undergraduate Students)

Topic	Agreement (Percentage)	Comments
1. Interactivity		
Promotes easy access to the topics presented.	90%	
2. Objectives		
Stimulates learning about the content addressed.	100%	
Stimulates learning new concepts.	95%	
Has an attractive presentation strategy.	80%	
3. Relevance and effectiveness		
Provides the appropriate and necessary resources for understanding language mindset and speaking mindset.	90%	
Arouses your interest in language mindset and speaking mindset.	100%	
Stimulates you to change behaviors.	75%	
4. Clarity		
Presents information in a simple way.	90%	
Allows you to reflect on the content presented.	80%	
5. In general, how would you rate the video for learning about language mindset and speaking mindset	100%	

APPENDIX D

Q-set and Q sheet

A. Statements of Q-set

Statements of Q-set	
1. No matter how intelligent I am, I can always improve speaking a foreign language.	ไม่ว่าฉันจะฉลาดแค่ไหนฉันก็พัฒนาการพูดภาษาอังกฤษได้เสมอ
2. The more I try to learn speaking a foreign language, the better I become.	ยิ่งฉันพยายามเรียนรู้การพูดภาษาอังกฤษมากเท่าไรฉันก็ยิ่งพูดได้ดีขึ้นเท่านั้น
3. I can learn to speak a foreign language well by practicing enough.	ฉันสามารถเรียนรู้ที่จะพูดภาษาอังกฤษได้ดีโดยการฝึกฝนให้เพียงพอ
4. As a language learner, I have limited ability to speak a foreign language and can't change it.*	ในฐานะผู้เรียนภาษา ฉันมีความสามารถในการพูดภาษาอังกฤษที่จำกัด และไม่สามารถเปลี่ยนแปลงได้*
5. Only a few people can learn and get better at speaking a foreign language, and they were born with this ability. I'm not one of them.*	มีเพียงไม่กี่คนเท่านั้นที่สามารถเรียนรู้และพูดภาษาอังกฤษได้ดีขึ้น และพวกเขาเกิดมาพร้อมกับความสามารถนี้ ฉันไม่ใช่หนึ่งในนั้น
6. To be honest, I don't think I can improve my ability to speak a foreign language.*	บอกตามตรง ฉันไม่คิดว่าฉันจะพัฒนาความสามารถในการพูดภาษาอังกฤษได้
7. When speaking a foreign language is hard, it makes me want to practice more, not less.	เมื่อการพูดภาษาอังกฤษเป็นเรื่องยาก มันทำให้ฉันต้องการฝึกฝนมากขึ้น
8. The harder I practice, the better I will be at speaking a foreign language.	ยิ่งฉันฝึกฝนมากเท่าไร ฉันก็ยิ่งพูดภาษาอังกฤษได้ดีขึ้นเท่านั้น
9. To tell the truth, when I try hard to improve my foreign language speaking, it makes me feel not very smart.*	ความจริงแล้ว เมื่อฉันพยายามอย่างหนักเพื่อพัฒนาการพูดภาษาอังกฤษ มันทำให้ฉันรู้สึกว่าคุณเองไม่ฉลาดเลย
10. If I struggle with a difficult speaking task in a foreign language, I should try easier one.*	ถ้าฉันต้องพยายามทำแบบฝึกหัดพูดภาษาอังกฤษยากๆ ฉันควรลองทำแบบฝึกหัดที่ง่ายกว่านี้
11. I think I can improve to speak a foreign language well because of hard work.	ฉันคิดว่าฉันพัฒนาจนพูดภาษาอังกฤษได้ดีเพราะฉันพยายามอย่างหนัก
12. I may need to put effort to speak a foreign language well.	ฉันอาจต้องใช้ความพยายามเพื่อให้ตัวเองพูดภาษาอังกฤษได้ดี
13. I find it easier to speak a foreign language well because I put enough effort.	ฉันพบว่าการพูดภาษาอังกฤษได้ดีนั้นเป็นเรื่องง่ายหากฉันพยายามมากพอ
14. I think I can speak a foreign language well because I have a talent in learning foreign languages.*	ฉันคิดว่าฉันสามารถพูดภาษาอังกฤษได้ดีเพราะฉันมีพรสวรรค์ในการเรียนรู้ภาษาต่างประเทศ
15. I may need a special talent to speak a foreign language well.*	ฉันอาจต้องมีความสามารถพิเศษเพื่อให้ตัวเองพูดภาษาอังกฤษได้ดี
16. I find it hard to speak a foreign language well because I am not good at languages.*	ฉันพบว่ามันยากที่จะพูดภาษาอังกฤษได้ดีเพราะฉันไม่เก่งภาษา
17. I participate in foreign language speaking activities because I enjoy learning new speaking skills.	ฉันมีส่วนร่วมในกิจกรรมการพูดภาษาอังกฤษเพราะฉันสนุกกับการเรียนรู้ทักษะการพูดใหม่ ๆ
18. I like foreign language speaking activities that challenge me.	ฉันชอบกิจกรรมการพูดภาษาอังกฤษที่ท้าทาย

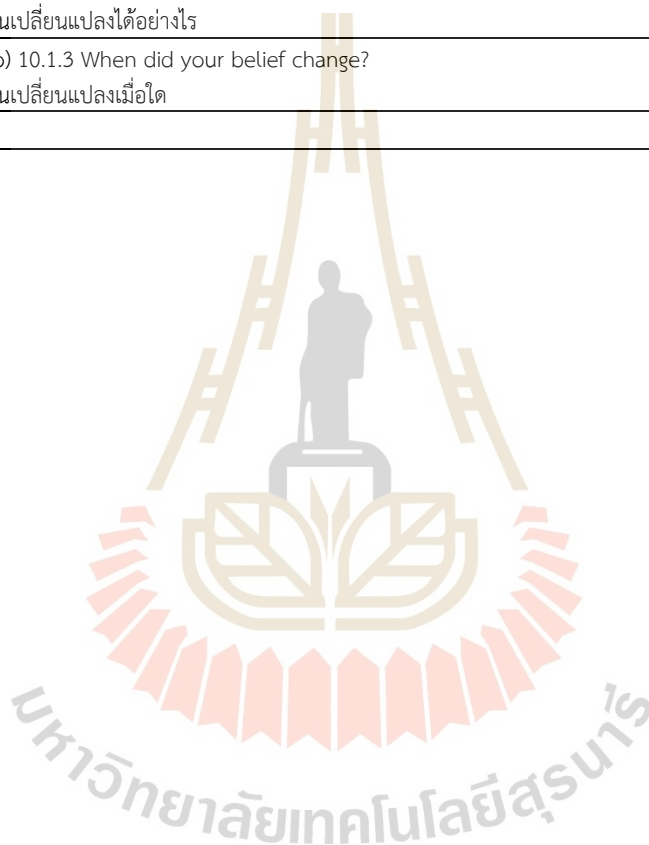
Statements of Q-set	
19. I participate in foreign language speaking activities to improve my skills.	ฉันมีส่วนร่วมในกิจกรรมการพูดภาษาอังกฤษเพื่อพัฒนาทักษะของฉัน
20. I participate in foreign language speaking activities to prove that I'm better at it than others in my class.*	ฉันมีส่วนร่วมในกิจกรรมการพูดภาษาอังกฤษเพื่อพิสูจน์ว่าฉันเก่งกว่าคนอื่น ๆ ในชั้นเรียนของฉัน *
21. I prefer foreign language speaking activities that are similar to tasks I've done before.*	ฉันชอบกิจกรรมการพูดภาษาอังกฤษที่คล้ายกับกิจกรรมที่ฉันเคยทำมาก่อน
22. I participate in foreign language speaking activities so others in my class won't think I'm dumb.*	ฉันร่วมกิจกรรมพูดภาษาอังกฤษเพื่อให้คนอื่น ๆ ในชั้นเรียนไม่คิดว่าฉันโง่
23. I might not participate in a foreign language speaking activity to avoid looking foolish when speaking.*	ฉันอาจไม่ร่วมกิจกรรมพูดภาษาอังกฤษเพื่อหลีกเลี่ยงการดูโง่เขลาเมื่อพูดภาษาอังกฤษ
24. I like a foreign language speaking activity best when it is easy.*	ฉันชอบกิจกรรมการพูดภาษาอังกฤษที่สุดเมื่อมันง่าย
25. When I am failing in speaking a foreign language, it means that I have to put more effort to improve my speaking.	เมื่อฉันล้มเหลวในการพูดภาษาอังกฤษหมายความว่าฉันต้องใช้ความพยายามมากขึ้นเพื่อปรับปรุงการพูดของฉัน
26. When I am failing in speaking a foreign language, it means that I should find the other ways to practice my speaking.	เมื่อฉันล้มเหลวในการพูดภาษาอังกฤษหมายความว่าฉันควรหาวิธีอื่นในการฝึกพูดของฉัน
27. When I am failing in speaking a foreign language, it means that I don't have enough talent in language learning.*	เมื่อฉันล้มเหลวในการพูดภาษาอังกฤษหมายความว่าฉันมีความสามารถไม่เพียงพอในการเรียนภาษา
28. When I am failing in speaking a foreign language, it means that it is fruitless to practice speaking.*	เมื่อฉันล้มเหลวในการพูดภาษาอังกฤษหมายความว่า การฝึกพูดไม่มีผล
29. When I couldn't do a difficult foreign language speaking task, I will try to find what makes me unable to do it.	เมื่อฉันไม่สามารถทำงานพูดภาษาอังกฤษที่ยากได้ ฉันจะพยายามหาว่าอะไรทำให้ฉันไม่สามารถทำได้
30. I feel good when I receive corrective feedback and criticisms on my speaking performance because they make my speaking better.	ฉันรู้สึกดีเมื่อได้รับข้อเสนอแนะและคำวิจารณ์เกี่ยวกับการพูดของฉันเพราะมันทำให้การพูดของฉันดีขึ้น
31. Even if I don't have talent in speaking a foreign language, I try to seek strategies to practice speaking.	แม้ว่าฉันจะไม่มีความสามารถในการพูดภาษาอังกฤษฉันพยายามหาวิธีฝึกพูด
32. When I couldn't do a difficult foreign language speaking task, it probably means that the task is beyond my level.*	เมื่อฉันไม่สามารถทำงานพูดภาษาอังกฤษที่ยากได้ อาจหมายความว่างานนั้นเกินระดับของฉัน
33. I don't like corrective feedback and criticisms because it suggests that I am not good at speaking a foreign language.*	ฉันไม่ชอบข้อเสนอแนะและคำวิจารณ์เพราะมันแสดงให้เห็นว่าฉันไม่เก่งในการพูดภาษาอังกฤษ
34. Trying new learning strategies is a waste of time if I do not have talent in speaking a foreign language.*	การลองใช้กลยุทธ์การเรียนรู้ใหม่ ๆ เป็นการเสียเวลาถ้าฉันไม่มีพรสวรรค์ในการพูดภาษาอังกฤษ
35. I am eager to speak a foreign language in my class.	ฉันกระตือรือร้นที่จะพูดภาษาอังกฤษในชั้นเรียนของฉัน
36. I feel comfortable when I speak a foreign language in front of my teacher and classmates.	ฉันรู้สึกสบายใจเมื่อฉันพูดภาษาอังกฤษต่อหน้าครูและเพื่อนร่วมชั้น

APPENDIX E

Expert Validation for Semi-structured Interview Questions

Semi-structured Interview questions	IOC	Comments and Suggestions
Definition		
1. How do you define language intelligence? ท่านนิยามคำว่า ความฉลาดทางภาษา ว่าอย่างไร	.50	ปัญหาเชิงภาษา
2. What about foreign language speaking ability, how do you define it? ท่านนิยามคำว่า ความสามารถในการพูดภาษาต่างประเทศ ว่าอย่างไร	1	ค่อนข้างจะยากสำหรับคนที่ตอบไม่ได้เตรียมตัว
3. How does language intelligence relate to speaking performance? ท่านคิดว่า ความฉลาดทางภาษา มีความสัมพันธ์กับพฤติกรรมการพูดอย่างไร	1	ค่อนข้างจะยากสำหรับคนที่ตอบไม่ได้เตรียมตัว
(follow-up) 3.1 What other factors contribute to speaking performance? ท่านคิดว่า ปัจจัยใดบ้างที่ส่งผลต่อพฤติกรรมการพูดของท่าน	1	ยกตัวอย่างปัจจัยบ้าง
(follow-up) 3.2 How important are these factors to speaking performance? ท่านคิดว่า ปัจจัยเหล่านั้นมีความสำคัญต่อพฤติกรรมการพูดอย่างไร	1	
4. What do you think about failures in general? โดยทั่วไปแล้ว ท่านคิดอย่างไรกับความล้มเหลว	1	ล้มเหลวเรื่องอะไร
5. How do you tend to react to setbacks or failures? ท่านจัดการกับความล้มเหลวอย่างไร	1	Tend do-มีแนวโน้ม
Mindset and change in mindset		
6. Do you think someone can change language intelligence level? ท่านคิดว่า คนเราสามารถเปลี่ยนแปลงความฉลาดทางภาษาของตนเองได้หรือไม่	1	หัวข้อค่อนข้างกระโดด อาจจะกล่าวที่มาที่ไป การเปลี่ยนแปลง
7. Do you think someone can change foreign language speaking ability? ท่านคิดว่า คนเราสามารถเปลี่ยนแปลงความสามารถในการพูดภาษาต่างประเทศของตนเองได้หรือไม่	.50	
8. Please describe how you came to believe this. โปรดอธิบายว่าทำไมท่านจึงมีความเชื่อเช่นนี้	.50	เชื่อเช่นนี้ อาจจะเปลี่ยนเป็นเชื่อว่าสามารถเปลี่ยน..
8.1 Have you always thought this way? ท่านคิดเช่นนี้มาเสมอหรือไม่	1	ประเด็นดูค่อนข้างจริงจังมาก
(Follow-up: Yes) 8.1.1 How did this belief develop? ท่านคิดว่า ความเชื่อนี้เกิดจากอะไร	1	ประเด็นดูค่อนข้างจริงจังมาก
(Follow-up: No) 8.1.2 In what way did your beliefs change? ความเชื่อของท่านเปลี่ยนแปลงได้อย่างไร	1	ความเชื่อว่าจะอะไร
(Follow-up: No) 8.1.3 When did your belief change? ความเชื่อของท่านเปลี่ยนแปลงเมื่อใด	1	
(Follow-up: No) 8.1.4 Why did your beliefs change? (What happened that caused the shift?) ทำไมความเชื่อของท่านจึงเปลี่ยนแปลง (โปรดระบุเหตุการณ์ที่ก่อให้เกิดความเปลี่ยนแปลง)	1	มันดูยากที่จะตอบ
Domain-specific mindset: Foreign language speaking mindset		
9. Do you think that foreign language speaking abilities differ from general language intelligence? How?	1	

Semi-structured Interview questions	IOC	Comments and Suggestions
ท่านคิดว่าความสามารถในการพูดภาษาต่างประเทศมีความเหมือนหรือแตกต่างจากความฉลาดทางภาษาหรือไม่ อย่างไร		
10. How did you come to believe that? ทำไมท่านจึงคิดเช่นนั้น	1	
10.1 Have you always thought this way? ท่านคิดเช่นนั้นมาเสมอหรือไม่	1	
(Follow-up: Yes) 10.1.1 How did this belief develop? ท่านคิดว่า ความเชื่อนี้เกิดจากอะไร	1	
(Follow-up: No) 10.1.2 In what way did your beliefs change? ความเชื่อของท่านเปลี่ยนแปลงได้อย่างไร	1	
(Follow-up: No) 10.1.3 When did your belief change? ความเชื่อของท่านเปลี่ยนแปลงเมื่อใด	1	
Total	.93	



APPENDIX F

A. Pearson's Correlation (Stage 1)

Relationship of Language Mindset and Foreign Language Speaking Mindset (Stage 1)

Measure		1	2
3. Language mindset	Pearson's r	—	
	p-value	—	
4. Foreign language speaking mindset	Pearson's r	.468**	—
	p-value	<.001	—

** Correlation is significant at the 0.01 level (2-tailed).

B. Pearson's Correlation (Stage 2)

Relationship of the Language Mindset, Foreign Language Speaking Mindset, and Foreign Language Speaking Performance

Measure		1	2	3	4	5
1. LM	Pearson's r	—				
	p-value	—				
2. FLSM	Pearson's r	.497**	—			
	p-value	.001	—			
3. EOA	Pearson's r	.123	.243	—		
	p-value	.439	.122	—		
4. MPOG	Pearson's r	.310*	.291	.109	—	
	p-value	.046	.061	.492	—	
5. PRFS	Pearson's r	.400**	.352*	.418**	.353*	—
	p-value	.009	.022	.006	.022	—
6. SP	Pearson's r	-.011	.041	.232	-.175	.123
	p-value	.947	.796	.139	.268	.436

*. Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

C. Paired Samples T-Test of Speaking Performance Between Pre- and Post-Intervention

	Mean	S.D.	t	Paired Samples Effect Sizes			
				Significance		Effect Sizes	
				One-Sided p	Two-Sided p	Cohen's d	Hedges' correction
Post speaking test	12.93	1.31					
Pre-speaking test	9.02	1.26	19.147	<.001*	<.001*	2.95	2.90

Asterisk Indicates Significance

APPENDIX G

Excerpts from Guided Journal

1. The Strategies Used Related to Language Mindset

Beliefs	Excerpts from Guided Journal
1. Growth belief <ul style="list-style-type: none"> - Active strategies: - Use tools - Try new strategies - Engage in problem solving - Pay attention to class - Try to understand lesson 	<p><i>"I think I have growth mindset because I don't limit my abilities and believe that I can master foreign language. I think that to learn is to put on effort in practicing. So that we will be able to speak and write a foreign language" (GJ15)</i></p> <p><i>"Practice and effort lead us to improvement. Always believe that we can get better." (GJ17)</i></p> <p><i>"No one is good at things since we were born. It needs effort to learn." (GJ28)</i></p>
1. Fixed belief <p>Active strategies:</p> <ul style="list-style-type: none"> - Do self-monitoring and problem solving - Use tools - Seek help from peers and teachers - Try to understand lesson - Practice speaking a foreign language <p>Challenges Avoidance</p> <ul style="list-style-type: none"> - Avoid difficult tasks <p>Emotional responses</p> <ul style="list-style-type: none"> - Experience negative emotions 	<p><i>"Sometimes I am afraid of language learning but sometimes I am not. When I face some difficulties, I feel disheartened but when I can overcome them, I feel great." (GJ1)</i></p> <p><i>"I am not confident in myself and I pressure myself a lot so sometimes I get worried a lot when I learn and speak a foreign language." (GJ8)</i></p> <p><i>"I think I have a fixed mindset. I can learn but it is difficult. I am not good at English, I can understand basic sentence. I think having these abilities makes it difficult to learn English." (GJ10)</i></p>
Both beliefs <ol style="list-style-type: none"> 1. Active strategies: Put effort on extra study 2. Challenges Avoidance 	<p><i>"I am in between growth and fixed mindset." (GJ2)</i></p> <p><i>"I have a mixed mindset. When I encounter difficulties/challenges I don't want to learn. Having growth mindset encourages me to put on effort like Lisa (the example from the video)." (GJ12)</i></p> <p><i>"Although one may adopt a fixed mindset, one also can adopt growth mindset. Although I am not good at English and sometimes it is useless to try. But don't be afraid, I will always have a chance to learn." (GJ13)</i></p>

2. Language Learning Strategies Related to Effort

Strategies	Excerpts from Guided Journal
1. Self-monitoring	<p><i>"Go back and see what the problems are and try to improve those points." (GJ1)</i></p> <p><i>"I practice, I find what are the mistakes and try to fix them" (GJ18)</i></p> <p><i>"I find the way to make myself understand. For example, if pronunciation is the problem, I will search how to pronounce the correct sound on the internet. If grammar is the problem, I will search about grammar rules on the internet." (GJ28)</i></p>
2. Practice	<p><i>"I practice pronunciation of the vocabulary." (GJ2)</i></p> <p><i>"I try to speak following my sense, without worrying of making a mistake. I will not worried about what I have spoken out." (GJ13)</i></p> <p><i>"I practice my pronunciation, and I jot down how to pronounce each difficult word." (GJ35)</i></p>
3. Utilizing tools	<p><i>"I search on Google to find the correct pronunciation." (GJ6)</i></p> <p><i>"I use the application to listen to how the words are pronounced. Watch the video to learn how to pronounce the words." (GJ17)</i></p> <p><i>"I use Google translate to help teaching me pronunciation and I repeat after it." (GJ30)</i></p>

Strategies	Excerpts from Guided Journal
4. Self-study	<p>"I look up for vocabulary and look up for the correct pronunciation of the words on the internet." (GJ9)</p> <p>"I will try to search on the internet to find how to pronounce the words and write down on each vocabulary." (GJ23)</p> <p>"I will search how to pronounce the correct sound and the grammar rules on the internet." (GJ28)</p>
5. Seeking help from others	<p>"I will ask my friends who are good at English and ask them about the points to improve." (GJ15)</p> <p>"I ask the persons who are good at English." (GJ17)</p> <p>"I ask my friends or search on the internet." (GJ20)</p>
6. Avoiding problems/ challenges	<p>"I will avoid the problems." (GJ11)</p> <p>"I will skip it or following my friends." (GJ12)</p> <p>"I speak in English with soft voice or stay quiet." (GJ36)</p>

3. Attribution of Failures in Foreign Language Speaking

Cause of Failures	Excerpts from Guided Journal
1. Lack of effort	<p>"It's because I haven't try hard enough, so I become more determine and practice more often." (GJ7)</p> <p>"It's because I don't like English subject and I don't put on effort in speaking English, so I will try to put on effort so that I will acquire speaking skills and will be able to communicate in English. So that I have speaking skills and can utilize it when necessary." (GJ13)</p> <p>"I put on not enough effort and attention so I watch videos, read book about self-improvement." (GJ30)</p>
2. Lack of linguistic knowledge	<p>"I don't know vocabulary so I try to study more vocabulary." (GJ1)</p> <p>"I don't have enough basic knowledge in language, so I focus on learning grammar because I think grammar is basic knowledge of language." (GJ2)</p> <p>"It is because I don't understand grammar, so I try to speak and try to make my partner understand me although it is not grammatical correct." (GJ15)</p>
3. Lack of practice	<p>"I think it's because I barely use English in daily life so I don't get used to speaking English." (GJ5)</p> <p>"It's because I don't practice, so I start learning English by myself on the internet." (GJ12)</p> <p>"I haven't practice enough so I go back and study more about how to make a correct pronunciation." (GJ33)</p>
4. Lack of confidence	<p>"I am being too nervous, so I try to slow down and thinking of how to say things in English." (GJ6)</p> <p>"it's because I lack abilities and not confident so I practice by speaking repeatedly." (GJ22)</p> <p>"I lack confidence, so I practice more and try to apply knowledge to use in daily life." (GJ31)</p>
5. Difficulty level of the lessons	<p>"It is too difficult for me, so I don't pay much attention." (GJ10)</p> <p>"it is too difficult, so I play games." (GJ14)</p> <p>"I think that it is difficult, so I study more from the basic lessons of English." (GJ34)</p>
6. Lack of Talent	<p>"it's because I lack abilities and not confident so I practice by speaking repeatedly." (GJ22)</p> <p>"I am not good at language, so I practice my pronunciation." (GJ36)</p>

4. Behavior Related to Goal-Orientations

Goals	Behavior	Excerpts from Guided Journal
1. Able to communicate in a foreign language in daily life. (mastery goal) 2. Able to pass Exit English Examination/English Test. (performance goal) 3. Possess speaking skills applicable to the future workplace. (mastery goal)	1. Participation in the classroom activities	<i>"I sometimes can perform or can't perform because I am always nervous. However, I have courage to speak. Although I make some mistakes, I try to speak." (GJ1)</i> <i>"I always listen carefully and try to repeat after because it can help me to pronounce the words correctly." (GJ17)</i> <i>"I always be a good listener first, and try to speak in English as much as I can because I want to encourage myself to be confident so that I learn language, able to listen to English and understand, able to write in English." (GJ28)</i>
1. To improve language competence. (mastery goal) 2. Able to communicate in a foreign language in daily life. (mastery goal) 3. Possess speaking skills applicable to the future workplace. (mastery goal)	2. Expressing discomfort during participation in the classroom activities	<i>"I always feel anxious because I afraid of making mistakes like using the wrong words." (GJ11)</i> <i>"I always afraid because I afraid that I can't speak English and I don't understand English." (GJ14)</i> <i>"I am nervous because I am not good at English, and I am afraid of forgetting vocabulary." (GJ35)</i>
1. Possess confidence in foreign language speaking. (mastery goal) 2. Get a good grade. (performance goal)	3. Avoiding participation in classroom activities	<i>"I always avoid participating in speaking activities because I always have anxiety and lack of confidence." (GJ8)</i>

Mastery goal=focus on developing competence, learning, and skill improvement.

Performance goal=focus on demonstrating competence or ability relative to others. (Hulleman, Schrage, Bodmann, & Harackiewicz, 2010)

5. Emotions Related to Failures and Mistakes in Foreign Language Speaking

Aspects	Emotions	Definition and Excerpts from Guided Journal
Positive	Enjoyment	Enjoyment referred to when the participants expressed joy and engagement in foreign language speaking activities even though they made mistakes. <i>"It's fun, the more I make mistakes the more I learn." (GJ2)</i> <i>"I enjoy it, sometimes I am shy, and I also feel confidence." (GJ13)</i>
	Confidence	Confidence referred to when the participants expressed confidence when they made mistakes during speaking a foreign language in classroom activities. The excerpt of GJ13 showed this emotion. <i>"I enjoy it, sometimes I am shy, and I also feel confident." (GJ13)</i>
Neutral	Feeling Neutral	Feeling neutral referred to when the participants didn't express emotions when they made mistakes but rather expressed understanding that mistakes are a part of learning process. <i>"It's OK, I just don't get enough practice." (GJ5)</i>

Aspects	Emotions	Definition and Excerpts from Guided Journal
		<p><i>"It's a lesson that I can use to improve myself." (GJ17)</i></p> <p><i>"I think it's normal, we all can make mistakes." (GJ29)</i></p>
Negative	Sadness	<p>Sadness referred to when the participants expressed sadness when they made mistakes in foreign language speaking. The students responded differently when they experienced this emotion.</p> <p><i>"I feel a little bit down, but I will try to practice pronouncing the words correctly." (GJ7)</i></p> <p><i>"I feel resentful why I can't do it and I feel anxious." (GJ8)</i></p> <p><i>"I feel down and don't want to speak in English." (GJ28)</i></p>
	Shyness	<p>Shyness referred to when the participants expressed shyness when they made mistakes when speaking a foreign language during classroom activities.</p> <p><i>"I feel a little bit shy." (GJ6)</i></p> <p><i>"I feel shocked and a little bit shy." (GJ15)</i></p> <p><i>"I am embarrassed and worry about my speaking." (GJ35)</i></p>
	Disheartenment	<p>Disheartenment referred to when the participants expressed disheartened after making mistakes in foreign language speaking.</p> <p><i>"I feel disheartened, but I have to try." (GJ10)</i></p> <p><i>"I am disheartened but it makes me know my mistakes, to learn and get better from them." (GJ18)</i></p> <p><i>"I feel disheartened sometimes." (GJ32)</i></p>
	Worry	<p>Worry referred to when the participants expressed worry of making mistakes in foreign language speaking because they are afraid of negative judgement from other people.</p> <p><i>"I worry of my peers' and other people's judgement." (GJ16)</i></p> <p><i>"I am worried and quiet." (GJ34)</i></p> <p><i>"I am embarrassed and worry about my speaking." (GJ35)</i></p>
	Lack of confidence	<p>Lack of confidence referred to when the participants expressed insecurity after they made mistakes in foreign language speaking.</p> <p><i>"I lack confidence." (GJ31, GJ37)</i></p>
	Fear	<p>Fear referred to when the participants were afraid of making mistakes in foreign language speaking. This emotion led the students to show avoidance during classroom activities.</p> <p><i>"I am afraid, then I will just mumble because I will feel that I can't speak, and I lack confidence in speaking English." (GJ12)</i></p>
	Stress	<p>Stress referred to when the participants expressed stress when they made mistakes in foreign language speaking.</p> <p><i>"I am stressful, and I feel bad." (GJ19)</i></p>
	Surprise	<p>Surprise referred to when the participants were unexpected of making mistakes in foreign language speaking. This emotion co-occurred with shyness.</p> <p><i>"I feel shocked and a little bit shy." (GJ15)</i></p>
	Nervousness	<p>Nervousness referred to when the participants were nervous when they made mistakes in foreign language speaking.</p> <p><i>"I was nervous." (GJ4)</i></p>

6. Self-Regulatory Tendencies

Self-Regulatory Tendencies	Definition and Excerpts from Guided Journal
1. Proactive strategies	
1.1 Learning from mistakes	<p>Learning from mistakes referred to when the students recognized that they have made mistakes in foreign language speaking and they learn from the mistakes.</p> <p><i>"I will go over it and learn from mistakes." (GJ13)</i></p> <p><i>"I go over them and then find a strategy to handle them." (GJ16)</i></p> <p><i>"I go back and review what I have done wrong and how to make them better." (GJ33)</i></p>
1.2 Practice	<p>Practice referred to when the students repeatedly speak in a foreign language to improve their speaking abilities.</p> <p><i>"I try to use English in my daily life." (GJ15)</i></p> <p><i>"I speak about the topics that are challenging repeatedly so that I can learn." (GJ27)</i></p> <p><i>"I try to practice speaking, listening to music. Sometimes, I watch movies." (GJ28)</i></p>
1.3 Seeking new strategies	<p>Seeking new strategies referred to when the students try to employ new strategies to learn and improve their foreign language speaking skills.</p> <p><i>"I go over them and then find strategies to handle them." (GJ16)</i></p> <p><i>"I try again by setting specific goals." (GJ21)</i></p>
1.4 Seeking help from peers	<p>Seeking help from peers referred to when the students asked for assistance from their friends to learn and improve their foreign language speaking skills.</p> <p><i>"I ask my friends and study more." (GJ34)</i></p>
2. Emotion regulation	<p>Emotion regulation referred to when the students influence their emotions, experience, and express their emotions related to foreign language speaking.</p> <p><i>"I think positively that I can utilize them to learn and improve. Practice more." (GJ17)</i></p> <p><i>"Accept failures and mistakes and learn from them." (GJ30)</i></p> <p><i>"I try to be relaxed and after that I go back to practicing." (GJ38)</i></p>
3. Attribution of failures and mistakes	<p>Attribution of failures and mistakes referred to when the students ascribed the cause of failures and mistakes in foreign language speaking.</p> <p><i>"I think that I don't practice enough." (GJ23)</i></p>
4. Ignorance	<p>Ignorance referred to when the students chose to ignore or avoid challenging speaking tasks.</p> <p><i>"I ignore it. I have done my best at that time." (GJ8)</i></p> <p><i>"Avoid challenges and let them go." (GJ36)</i></p>

7. Perception of Feedback

Perception	Definition and Excerpts from Guided Journal
1. An indication of area for improvement	<p>An indication of an area for improvement referred to when students viewed that feedback indicates that they could improve.</p> <p><i>"Feedback is what tell us where we make mistakes." (GJ10)</i></p> <p><i>"Feedback is a tool that guides me to know what I have done wrong, where I can improve and how." (GJ17)</i></p> <p><i>"Feedback is a tool that guide me to know how much I can improve." (GJ20)</i></p>
2. A driving force	<p>A driving force referred to when the students thought of feedback as a driving force to improve their foreign language speaking.</p>

Perception	Definition and Excerpts from Guided Journal
	<i>"Driving force to improve myself." (GJ1)</i> <i>"A good driving force if it is not to strong." (GJ2)</i> <i>"What make me wants to improve." (GJ4)</i>
3. An indication of ability	An indication of ability referred to when the students viewed that feedback indicates their foreign language speaking abilities. <i>"What make us know the level of our abilities in English speaking." (GJ3)</i>
4. A threat to emotions	A threat to emotions referred to when the students thought of feedback as harmful comments. <i>"Things that make me worry and overthinking." (GJ34)</i>

8. Influence of Feedback on Foreign Language Speaking

Dimensions	Definition and Excerpts from Guided Journal
1. Tools for improvement	Tools for improvement referred to when the students reported that feedback affected them to recognize area for improvement, hence they tried to improve their foreign language speaking by using it as an instrumental to their learning. <i>"I can bring feedback to improve my deficiency points in foreign language speaking." (GJ3)</i> <i>"Feedback helps me see points to improve about English speaking." (GJ20)</i> <i>"Feedbacks make me see my weakness." (GJ24)</i>
2. Encouragement	Encouragement referred to when the students reported that feedback encouraged them to learn and improve their foreign language speaking abilities. <i>"I can get better." (GJ4)</i> <i>"Feedback makes me feel that I have hope in language learning." (GJ12)</i> <i>"Feedback makes me think that I have to practice more and prepare myself more." (GJ16)</i>
3. Indicators of current ability	Indicators of current ability referred to when the students reported that feedback affected them to perceive their current foreign language speaking performance. <i>"Feedback makes me think that I am not good at English." (GJ11)</i> <i>"Feedback is what makes me think I am not good at English, but I get driving force from feedback." (GJ13)</i> <i>"I am stupid and don't have enough language ability, however, I don't get disheartened." (GJ28)</i>

9. Emotional Experience Before Foreign Language Speaking Activities

Emotions	Definition and Excerpts from Guided Journal
Positive	
Enjoyment	<i>"I enjoy learning, so I enjoy participating learning language." (GJ30)</i>
Confidence	<i>"Fun. When I have fun, I feel confident to speak. I feel a little bit nervous when I have to speak English." (GJ2)</i>
Neutral	
	<i>"I feel nothing, so I don't pressure myself." (GJ27)</i>
Negative	
Nervousness	<i>"I feel that I need time for preparation because I don't know much vocabulary. I am nervous when I have to speak English." (GJ21)</i>
Worry	

Emotions	Definition and Excerpts from Guided Journal
Lack of confidence Pressure Fear of making mistakes Anxiety Boredom Dislike Embarrassment Uncomfortable	<p><i>"I feel worried and lack confidence. These make me think it (foreign language speaking) is difficult, and I don't want to participate in learning activities." (GJ10)</i></p> <p><i>"I am shy, not confidence, worried that I will make some mistakes." (GJ3)</i></p> <p><i>"Worry and pressure. They influence me to not to be myself, afraid of making mistakes, worry that I will not be able to speak." (GJ8)</i></p> <p><i>"I pressure myself, but I try my best. It makes me lack confidence in speaking English." (GJ37)</i></p> <p><i>"I am afraid I will make mistakes (say the words incorrectly) so I afraid to speak English sometimes or every time when I have to speak English in the classroom." (GJ12)</i></p> <p><i>"I am panic and sweat, it influences me to lack confidence." (GJ4)</i></p> <p><i>"I am bored, so I don't pay attention to lesson in class." (GJ28)</i></p> <p><i>"I dislike it because I can't speak English and I can't order words into sentence in English, it influences me to be embarrassed when I have to speak English, but I also enjoy speaking." (GJ13)</i></p> <p><i>"I feel uneasy, so I always laugh when I speak English." (GJ26)</i></p>

10. Situation Triggered Students' Negative Emotions

Emotion	Situations	Excerpts
Nervousness	<ul style="list-style-type: none"> Take a speaking test. Speak a foreign language in front of classmates. Speak with foreigners. Receive feedback. Unable to produce a speech. Unable to answer questions in a foreign language. Make mistakes. 	<p><i>"When I take speaking test and when I have to speak in front of the class, I am afraid and nervous, they make me can't speak English." (GJ8)</i></p> <p><i>"When I have to talk with foreigners, I feel nervous, it makes me stammer when I speak." (GJ4)</i></p> <p><i>"When I receive feedback, I feel nervous. It makes me stumble." (GJ5)</i></p> <p><i>"When I can't put the word into correct order and when I don't understand the meaning of what I say or hear, I feel nervous. It makes me silent, or can't keep on speaking English, even though it's a simple word. I can answer to some questions." (GJ12)</i></p> <p><i>"When I make mistakes or when people comment, I feel nervous. It makes me stammer when I speak." (GJ36)</i></p>
Fear	<ul style="list-style-type: none"> Take a speaking test. Speak a foreign language in front of classmates. Unable to answer questions in a foreign language. 	<p><i>"Speaking test. I am afraid. It makes me stumble when I speak." (GJ11)</i></p> <p><i>"When I have to answer the questions in front of class, I am afraid. So, I lack confidence." (GJ23)</i></p> <p><i>"When I can't answer questions in English, I am afraid and nervous." (GJ13)</i></p>

Emotion	Situations	Excerpts
Lack of confidence	<ul style="list-style-type: none"> Take a speaking test. Speak a foreign language in front of classmates. 	<p><i>"When I have to speak in front of the class, I lack confidence."</i> (GJ18)</p> <p><i>"I lack confidence when I have to answer the questions in front of class."</i> (GJ22)</p> <p><i>"When I have to take a speaking test and unable to control my nervousness, I lack confidence. It makes me overthink because I will think of the vocabulary to convey what I think."</i> (GJ28)</p>
Boredom	<ul style="list-style-type: none"> Participate in classroom activities 	<p><i>"When I participate in classroom activities, I feel sleepy and lazy."</i> (GJ37)</p>

11. Emotion Regulation and Foreign Language Speaking

Emotion regulation strategies	Excerpts from Guided Journal
1. Rumination	<p><i>"I can't calm my worry about speaking because I am afraid, and I think that I can't speak English."</i> (GJ8)</p> <p><i>"I always feel anxious, and I can't reduce the level of my anxiety."</i> (GJ11)</p> <p><i>"I always stress myself out because fear of making mistakes."</i> (GJ35)</p>
2. Suppression	<p><i>"I always feel worried, but I try to reduce the level of worrying by sighing."</i> (GJ4)</p> <p><i>"I don't worry when I speak English."</i> (GJ27)</p>
3. Situation selection	<p><i>"I reduce my worries by practicing speaking more and take time before I speak English."</i> (GJ6)</p> <p><i>"I choose to stay quiet before I get back to the lessons."</i> (GJ12)</p> <p><i>"I eat snacks and think positively."</i> (GJ19)</p>
4. Situation modification	<p><i>"I always feel worried but I try to build confidence."</i> (GJ2)</p> <p><i>"I laugh to relieve my nervousness."</i> (GJ26)</p> <p><i>"I breathe in-out deeply and calm myself down."</i> (GJ30)</p>
5. Attention deployment	<p><i>"I try to reduce my anxiety by focusing on the activities. Whatever the results come out, I accept it because I have tried my best."</i> (GJ10)</p> <p><i>"I do mindfulness and gradually adjust myself to understand my anxiety."</i> (GJ16)</p> <p><i>"I pay attention and being mindfulness."</i> (GJ29)</p>
6. Reappraisal	<p><i>"I try to tell my self to keep on learning and I can do it."</i> (GJ1)</p> <p><i>"I try to reduce my worry by cheering myself up and think that I speak with my close friends."</i> (GJ9)</p> <p><i>"I try to speak and tell myself that you can get better if you get the nerve up to speak English."</i> (GJ18)</p>

Excerpts from the Semi-structured interview

Change in Thai Undergraduate Students' Foreign Language Speaking Mindset

Change and Factor Influenced Change	
Cognitive development	Cognitive change referred to the state that individuals use abstract reasoning in understanding the world (Huitt & Hummel, 2003).
1. Recognizing the importance of foreign language speaking	<p><i>"It can change because none of us originally knew English. They can still learn it, so why can't I. When I was a child, I didn't think it can change. I didn't think English was important. I were just primary school kids; I didn't know how necessary it was. It changed around Grade 6, I think. I just felt like I wanted to understand. My primary school didn't teach English, so I started practicing, memorizing exercises, and vocabulary on my own, like ABCs. The point that made me want to learn English was when I watched reaction videos. I was a fan, and when a new song came out, I wanted to know what people thought about it."</i> (P1)</p> <p><i>"I only started thinking this way during my serious studies in university. It might be because, in university, I felt that I wasn't good enough yet. I realized that English proficiency would affect my future studies and work, making me want to improve myself."</i> (P11)</p> <p><i>"I started thinking this way around the time I was preparing for university. When I was younger, it felt difficult. I made a lot of mistakes and saw others who were better, so I didn't feel like speaking much. Approaching adulthood made me think more about my future. I feel good about wanting to improve myself and being more confident than before."</i> (P16)</p>
Fluctuation	Fluctuation referred to the unstable state of foreign language speaking mindset among students which occurred after receiving feedback or encountering challenging situations.
2. Teachers' feedback 3. Challenging situations	<p><i>"My primary school wasn't very good; we just memorized vocabulary. Elderly people would make snide remarks about my English. But in high school, I changed my mindset and ignored those comments. I felt it was a shame I couldn't speak English well. I wanted to talk to artists and communicate in English. There was a time during my English studies when I couldn't do well on exams. At that time, I think my speaking abilities can't change. But I enjoy playing English games and chatting with friends in English, which makes me more comfortable with the language. There was a time during university when I could answer questions in class. The teacher said we didn't need to translate entire sentences, just understand the key words. This made me more confident."</i> (P8)</p> <p><i>"Speaking abilities can change. If we are diligent, we can speak better. I haven't thought this way since childhood. In my childhood, I was in a private school with foreign teachers. My language knowledge wasn't much because my kindergarten teacher was Thai. When I moved to elementary school and encountered foreign teachers, I didn't understand what they were teaching and thought I couldn't do it. There was a female foreign teacher who, when I couldn't do it, would say, "Hey, you're so dumb," in English. Around grade 9 or 10, second term. The teacher asked us to speak English, and I spoke incorrectly with the wrong accent. They said, "You've studied for so long, why can't you speak yet?" which made me feel bad about myself."</i> (P13)</p>

Change and Factor Influenced Change	
	<p><i>"I just thought about it myself and realized it can change. There was a time I thought my ability couldn't change, but not for long. When I got lower scores than my friends in English tests, I briefly thought maybe I wasn't good enough." (P10)</i></p> <p><i>"With practice, it can change a lot. In high school, I felt that I couldn't improve my English speaking because I failed exams and scored very low. My mindset changed in university because of my friends. They influenced me a lot. Watching videos about mindset, they gave me many new perspectives.</i></p> <p><i>It made me want to improve myself, like the three people in the videos you showed us." (P17)</i></p>



CURRICULUM VITAE

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