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' 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 hole 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.
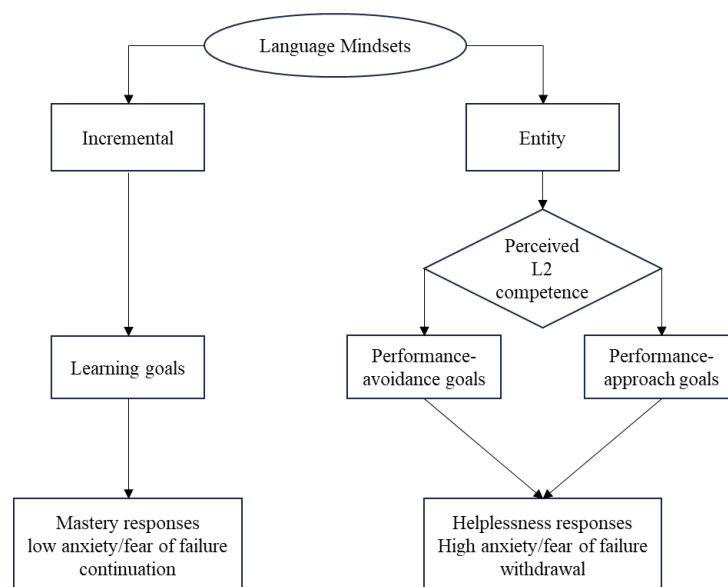

Figure 2.1 Mindset-Goals-Responses Model (Lou & Noels 2017: 217)

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.
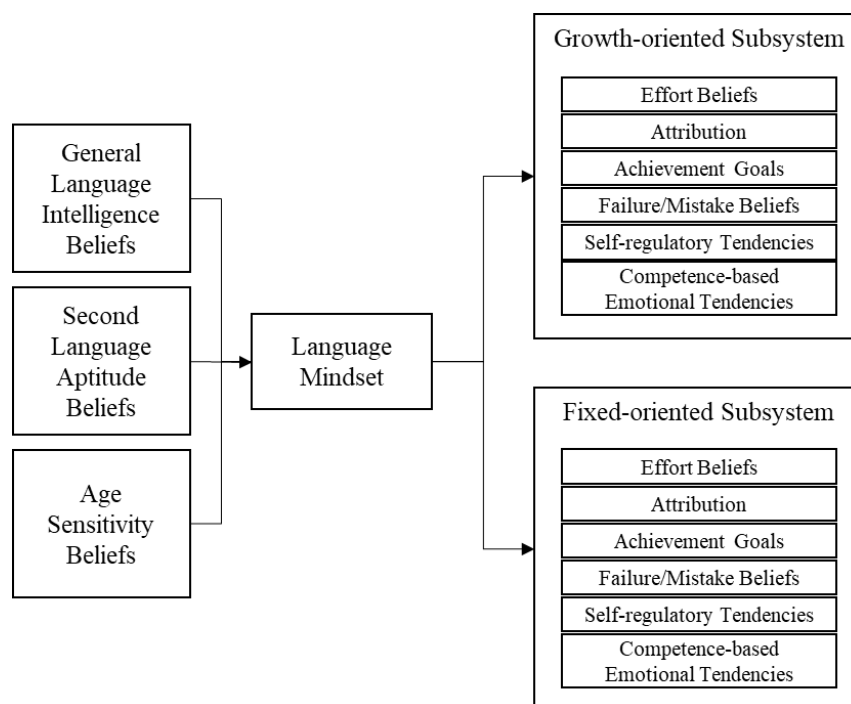
Figure 2.2 Language Mindset as a Core of Meaning System

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; Etae 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. Schrodt 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. Frary (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.

2.5 Conceptual Framework

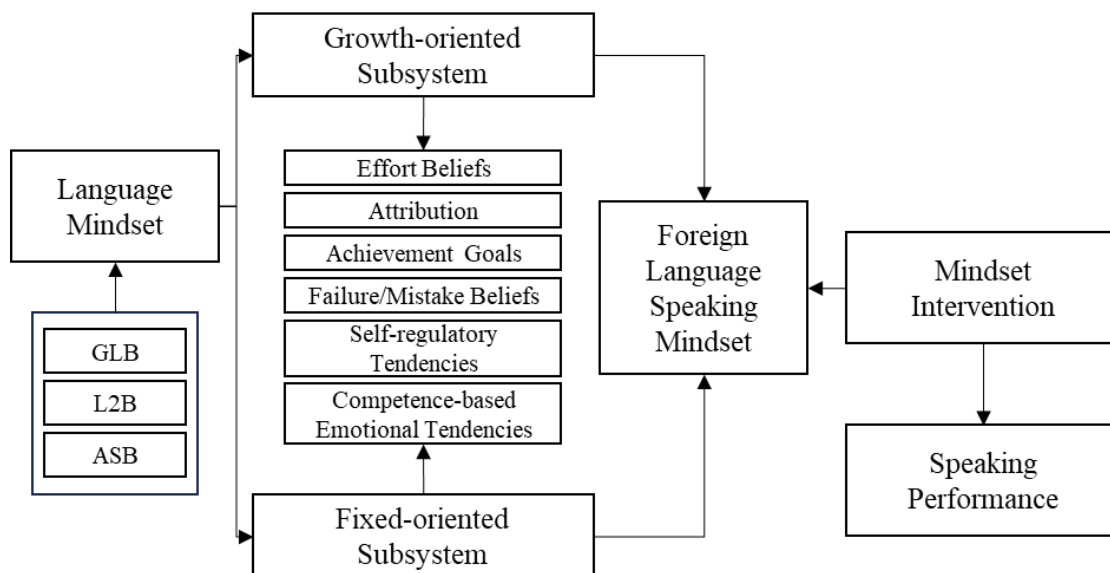Regarding the literature review, the conceptual framework of the current study is presented in Figure 2.3 below.

Figure 2.3 Conceptual Framework of L2 Speaking Mindset of
Thai Undergraduate Students

The conceptual framework in Figure 2.3 outlines how the foreign language speaking mindset is shaped by learners' beliefs and their interpretations of learning-related variables. This framework draws upon learners' interpretation of various learning components within the domain of speaking skills. The diagram presents a structured model that positions language mindset as the core element within the belief system. Learners' beliefs about general language ability, second language aptitude, and the critical period hypothesis collectively contribute to the formation of their language mindset. Placing language mindset at the center of the framework suggests that learners' interpretation of learning variables, such as attribution, effort, achievement goals, self-regulation, failure and mistake beliefs, and emotional responses, is influenced by both their mindset and their perceived proficiency in a foreign language.

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.