Undergraduate Students' Perceptions on Growth Mindset, Intrinsic Values, and Self-Regulation in English Language Learning

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Abstract

This study aims to investigate Thai undergraduate students' perceptions of three psychological factors: growth mindset, intrinsic value, and self-regulation in English language learning, and the relationship among these three variables. A total of 231 English-major students from seven universities completed an online questionnaire assessing current practices and expectations. Data were analyzed using descriptive statistics, the Priority Need Index (PNI), and Spearman's rank-order correlations. Results indicate that while students generally possess strong growth mindsets and intrinsic motivation, they seek further enhancement, particularly in translating these attitudes into effective learning strategies. Self-regulation emerged as the highest priority need, with notable gaps in study planning, progress monitoring, and engagement beyond the classroom. Correlation analysis revealed strong, positive relationships among all three factors, with intrinsic value most strongly linked to self-regulation. These findings underscore the importance of integrated pedagogical methods that foster mindset, motivation, and self-management skills to enhance English proficiency in EFL contexts.

Keywords: growth mindset, intrinsic value, self-regulation, psychological factors, English as a foreign language, university students

1. Introduction

Due to current technological progress, English plays a crucial role as a common language for communication across nations and digital platforms (Kwok, 2019; Syafrony, 2024). Fluency in English not only enriches personal experiences such as traveling and engaging with different cultures, but it also provides access to global job markets and facilitates cooperation in international business contexts. Consequently, many people around the world, especially non-native speakers, are increasingly motivated to study English, whether as a second language (ESL) or a foreign language (EFL) (Limbong, 2017; Pirooz Mofrad et al., 2019; Smokotin et al., 2017). This trend is evident in the growing number of academic programs offered in English, even in countries where it is not the primary language (Astika, 2015; Latif, 2017). In Thailand, for example, a total of 71 English-medium undergraduate programs are currently available across public and private universities. These include majors such as English for Communication, English for Careers and International Communication, English for Education, Business English, and English Language Teaching (Council of University Presidents of Thailand, 2025).

Many non-native English speakers are interested in learning English but encounter several challenges in acquiring their second or foreign language skills. These challenges stem from linguistic, sociocultural, educational, and pedagogical factors (Aisyah et al., 2024; Khan & Khan, 2016; Usop, 2024). Students from different countries commonly face different challenges. For example, students who experience the first language (L1) interference may have difficulties in pronouncing English sounds, understanding English grammatical rules, and sentence structure (Capacio & Datugan, 2024). In some countries, such as Sri Lanka and Saudi Arabia, societal attitudes towards English and cultural norm differences were identified as factors that impact motivation and engagement in learning English (Samarajeewa & Mohammed, 2025).

Moreover, the aforementioned challenges can lead to create psychological barriers that hinder ESL and EFL students' progress toward English proficiency (Li, 2023; Ramli & Setyawan, 2023; Samarajeewa & Mohammed, 2025). When students face multiple challenges during their language learning and practice, they may develop negative attitudes toward the target language, change their perception about their abilities to learn, and exhibit low motivation. These factors are vital for their engagement with English learning resources, participation in class activities, and success in learning English. Therefore, it is essential to address these psychological factors as critical elements that enable students to achieve their potential in language proficiency (Bai & Wong, 2020; Dong, 2024; Park & Han, 2023).

The psychological factors in language learning, including growth mindset, intrinsic value, and self-regulation, are interconnected and influence how students approach their learning (Bai & Wong, 2020; Dong, 2024; Park & Han, 2023). Together, these factors play a role in improving resilience, adaptability, personal interest, enjoyment, goal setting, and time management. Students with a growth mindset are more likely resilient, flexible; they can use self-regulated learning strategies (Bai & Wang, 2020; Dong, 2024). Students who perceive

intrinsic value in language learning often find meaning and enjoy learning. They show a strong desire to develop their ability and entertain themselves (Bai & Wong, 2020; Li, 2023). Furthermore, a growth mindset and intrinsic motivation tend to foster students' enthusiasm in self-regulated learning; students with this factor typically set specific, achievable goals and manage time for practice and reflection (Dong, 2024; Park & Han, 2023). Therefore, it should be underlined that these factors call for the focus of researchers in education and language teachers.

In recent years, several studies have investigated the impact of psychological factors, including growth mindset, intrinsic value, and self-regulation (Muthukrishnan et al., 2024; Zhang et al., 2024). Those studies focused on the factors associated with the different research aspects of English language learning such as their impacts on overall English learning outcomes, speaking skills, writing performance, or vocabulary acquisition. The studies were conducted with students in different levels of education, that is, primary, secondary, and tertiary levels, and in different countries. For example, Bai and Wong (2020) explore motivational beliefs of primary school students in Hong Kong. The data obtained from a questionnaire survey suggest that students' motivational beliefs are essential in order to promote the use of self-regulated learning approaches. Similarly, Zhang et al. (2024) studied into how growth mindset affected Hong Kong secondary school students' motivation and strategy use. The findings show that the writing performance of students improved after the training in independent motivation and strategy use. Additionally, Jiang et al. (2024) explored the motivational mechanisms behind growth language mindsets and their effect on perseverance among EFL university students in China, using a questionnaire and a mediation analysis. The results of their study indicated that students with a higher level of growth language mindset showed a greater level of perseverance in language learning, and a mediation analysis demonstrated that the growth language mindset indirectly predicted perseverance in L2 learning through the ideal and ought-to image of the second-language self. Key results of these studies show that a growth mindset plays a role in driving students to reach their language learning achievement. Vocabulary learning results in improved self-regulation in the learning process; it creates a positive impact on vocabulary acquisition.

As previously mentioned, previous studies highlighted the important role of psychological factors such as growth mindset, intrinsic motivation, and self-regulation in English language acquisition. Most studies have emphasized non-native English learners in East Asia, particularly in countries like China and Hong Kong, and focused on young learners in primary and secondary schools. On the other hand, there has been less attention to how these factors affect EFL students in the Southeast Asian context, especially in Thailand. Moreover, while the positive impact of these psychological factors is widely advocated, there is a lack of studies about students' perceived needs for improvement across these areas.

This research fulfilled the empirical gap by examining Thai university students who are studying English as a foreign language. It investigates how students perceive the influence of key psychological elements—such as growth mindset, intrinsic motivation, and self-regulation—on their progress in learning English. It also aimed to determine gaps between the perceptions of current learning practices of English-major students in Thailand and their expectations for future English learning achievement. Additionally, it sought to discuss the relationship between these variables. This study could lead to curriculum adjustments that make learning English more engaging and relevant to students' lives and interests. Moreover, it helps lecturers better understand and nurture students' growth mindsets, intrinsic values, and self-regulation skills, and improve teaching practices and student outcomes involving inclusion and diversity via teaching methods. Also, this study can contribute to the university policy for supporting teachers and students to develop these motivational factors.

Research Questions

1. What are the gaps between the perceptions of current English learning practices of English major students in Thailand and their expectations for the future learning achievement?

2. To what extent do the relationships among growth mindset, intrinsic value, and self-regulation differ between the current and expected states of the students?

2. Literature Review

2.1 Growth Mindset

A student's mindset, personal motivation, and ability to manage their own learning play a significant role in shaping how they approach English language development. Those who adopt a growth mindset believe that their abilities, including language skills, can improve over time with consistent effort, smart learning strategies, challenges, and a willingness to learn from both errors and constructive feedback (Beatson et al., 2019; Sum et al., 2022). Resilient people usually make an effort to achieve their goals. They are typically willing to try new strategies to improve their skills. They see obstacles as opportunities to learn and improve themselves, and keep developing through consistent practice. Thus, individuals with this perspective stay motivated, set high targets, and push through challenges while knowing that perseverance will ultimately lead to greater proficiency in English.

However, students who hold a fixed mindset tend to believe that intelligence and ability are inborn and cannot be significantly changed (Sum et al., 2022). This belief can become a barrier to developing English proficiency because they may shy away from difficult tasks that might reveal their weaknesses and challenge their self-image. Rather than valuing the learning journey, they often concentrate solely on results. As a result, they may become discouraged by setbacks and overlook helpful feedback or advice that could support their improvement in learning English (Beatson et al., 2019).

It can be inferred that intelligence can grow and improve with effort, which is known as a growth mindset (Rattan et al., 2015). Embracing this mindset has been linked to a variety of positive outcomes, including enhanced English language skills among students (Sisk et al., 2018). Also, the growth mindset emphasizes the potential for ongoing development. Individuals who adopt this perspective tend to apply sustained effort and problem-solving strategies to overcome challenges, leading to steady progress and long-term success (Sisk et al., 2018).To enhance the English learning environment, teachers play a vital role in encouraging students to adopt a growth mindset by integrating motivational teaching methods and psychological strategies that promote academic development (Dweck, 2017). Mindset theory offers a promising approach to enhancing student achievement and narrowing educational disparities. Then, school leaders can support this by organizing professional development sessions to familiarize educators with growth mindset principles, equipping them to implement mindset-based practices in their classrooms. When teachers are trained in these strategies, they are better able to guide students toward sustained academic growth (Dweck, 2017). Previous research indicates that students who embrace a growth mindset are more likely to increase their academic effort (Blackwell et al., 2007), and targeted psychological interventions can further support their learning progress (Degol et al., 2018).

2.2 Intrinsic Value

Alongside a growth mindset, intrinsic value plays a significant role in students' success in developing English language skills. This concept refers to a learner's internal motivation and personal drive to engage in the learning process (McCotter, 2008; Ryan & Deci, 2020). When students have a strong sense of intrinsic value, they tend to be more involved and committed to their language learning journey, often leading to greater academic success. They motivated themselves to engage the learning process such as questioning about the learning topics, challenging themselves to understand and solve problems in their learning, and appreciating their progress. Rather than relying on external incentives, intrinsically motivated learners find satisfaction in the process of acquiring new knowledge and skills. This internal motivation encourages deeper engagement and sustained effort in their English studies (McCotter, 2008; Hancock et al., 2019).

When students' internal motivation aligns with individual interests and values, they likely desire participation in learning activities more actively. This concept is closely related to self-determination theory, which explores how individuals achieve goals based on both internal and external forms of motivation (Deci & Ryan, 2000; Ryan & Deci, 2020). Following this theory, Abdelrahman et al. (2022) studied intrinsic motivation. They suggested that motivators are linked to the fulfillment of core psychological needs, including earning respect and influencing others, taking control of the learning environment, feeling connected by making a difference, helping other improve their well-being, taking the lead with responsibility, facing personal and professional challenges, and encouraging growth and development in both peers and educators.

2.3 Self-regulation

Self-regulation is one of the important factors affecting the learning achievements of students. According to Junaštíková (2023), self-regulation means a learner's ability for self-management in language learning. Learners can set their specific learning goals and time management. Ahsan (2023) defines it as the ability to regulate emotions, thoughts, and behaviors in ways that support personal values and academic goals. They have self-control and practice self-reflection. Howlett et al. (2021) conclude that individuals with self-regulation usually show enthusiasm to be part of activity engagement and adaptation. They selected appropriate methods for their learning pace, monitor their learning progress, improve their strategies when needed, and continue learning until they achieve their goal.

However, the ability to self-regulate is not automatic. Not all students are sufficiently motivated or equipped with the necessary cognitive and metacognitive tools to guide their learning. Some students may lack the ability to monitor their progress effectively or apply critical thinking strategies, which can hinder their performance (Junaštíková, 2023). This is especially evident in distance or online learning contexts, where students are required to exercise higher level of independence. Without proper self-regulation skills, students may misinterpret the flexibility of such environments such as a lack of structure and failure to complete required tasks (Cho & Heron, 2015).

Based on the literature review, all three dimensions have benefits and represent commonalities based on the list below. A growth mindset helps learners view challenges as opportunities to improve rather than obstacles to avoid. It encourages persistence, adaptability, and a willingness to learn from mistakes. Intrinsic value plays a key role in motivating students by connecting learning tasks with personal interest and meaning. When learners find enjoyment or relevance in what they are studying, they are more likely to engage deeply and maintain long-term motivation. Self-regulation allows students to take control of their learning through setting goals, creating action plans, and self-assessment. Therefore, these elements facilitate achievement skills, as summarized in Table 1.

Table 1. Achievement Skills

Achievement Skills	Description
1. Language proficiency	This likely includes competence in reading, writing, listening, and speaking English.
2. Communication skills	The ability to effectively communicate in English in various contexts, including business and tourism/hospitality settings.
3. Cultural awareness	Understanding and appreciating diverse cultural contexts through English language use.
4. Academic performance	Achieving satisfactory grades and meeting expected learning outcomes in English-related courses.
5. Practical application	The ability to use English skills in real-world situations, particularly in business communication and the tourism/hospitality industry.
6. Self-directed learning	Developing the capacity to continue improving English skills independently.
7. Professional readiness	Acquiring English language skills that enhance career prospects and employability in relevant fields.
8. Digital literacy	Competence in using digital platforms and technologies for English language learning and communication.
9. Critical thinking	The ability to analyze, evaluate, and express complex ideas in English.
10. Adaptability	Being able to adjust and improve English skills in response to challenges and feedback.

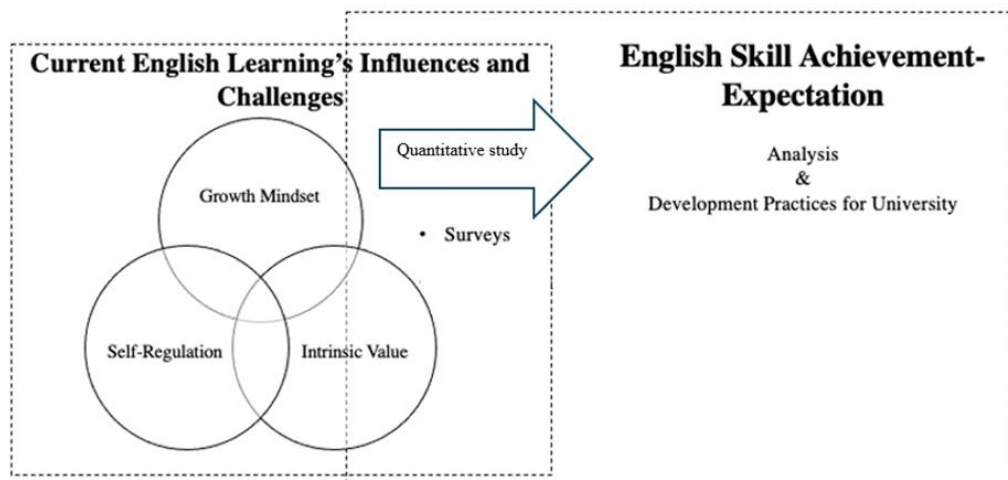Source: Authors' Elaboration

2.4 Conceptual framework

Figure 1. Conceptual Framework of the Study

Source: Authors' Elaboration

The conceptual framework illustrated above provides a lens for understanding the key factors that shape English language learning and the development of essential language skills. At the heart of this framework are three key elements, growth mindset (e.g., believing in

development through effort, viewing challenges as opportunities, willingness to learn and improve oneself, persisting in the face of difficulties, and engaging in critical thinking), intrinsic value (e.g., the enjoyment of learning for their own sake, embracing challenges in the learning process, valuing self-expression, and seeking personal fulfillment), and self-regulation (e.g. setting goals, managing time effectively, monitoring progress, and adapting learning strategies). These elements work together to affect how learners are involved in their English studies. A growth mindset means that the belief that abilities can improve through effort and perseverance. Students with this mindset are more likely to deal with challenges and view mistakes as opportunities to learn. Intrinsic value means students enjoy learning because they are interested and satisfied to learn. Self-regulation refers to the ability to manage one's own learning. They set goals, plan strategies, and monitor progress. These three elements help explain how students think about their learning. Hence, this framework is used for data collection, primarily through surveys that explore students' motivations, beliefs, and learning behaviors.

3. Method

This study used a descriptive survey to gather data on students' current perceptions related to growth mindset, intrinsic value, and self-regulation in English language learning. It also examined students' expectations for their future learning outcomes. By comparing their present attitudes and behaviors with their aspirations, the current study aimed to uncover gaps between where students currently experience and where they expect to meet.

3.1 Samples

According to Lindstrom (2010), a sample size of 10% is usually considered adequate for study purposes. The target population for this study included undergraduate students who enrolled in Bachelor's degree programs in English and English for International Communication at 71 universities across Thailand. A total sample of 231 students (approximately 30-35 per university) from seven universities participated in the study. The majority of the sample was third-year students, with 31.6%, followed by first- and second-year students, with 26% and 25%, respectively.

Table 2. Demographic characteristics of the sample (*n*= 231)

Academic Year	Frequency (n)	Percentage (%)
1st Year	60	26.0%
2nd Year	59	25.5%
3rd Year	73	31.6%
4th Year	39	16.9%
Total	**231**	**100.0%**

The sample of this study was recruited using non-probability sampling, including convenience and snowball methods. First, the researchers contacted students through accessible classes and university networks. The Google Form survey was sent via the LINE app. Second, after completing the survey, respondents were encouraged to share the survey link with eligible friends in the same programs. These methods were chosen because of the geographical distribution of the population and time constraints. Although these methods may limit full population representativeness, they allowed for the collection of sufficient and diverse responses across universities.

3.2 Research Instrument

The research instrument was a structured questionnaire conducted on the Google platform. The questionnaire consisted of three parts with a total of 30 questions, and each part was comprise of 10 questions—growth mindset, intrinsic value, and self-regulation. Each question was developed based on Table 1, and samples were asked to express their viewpoints based on current practices and expectations. They were anonymous and voluntary to fill the questionnaire.

To ensure content validity, this study applied the Index of Item-Objective Congruence (IOC) following Nantee and Sureeyatanapas (2021). Five experts evaluated all questionnaire items, and each item obtained an IOC value greater than 0.66, which exceeded the minimum threshold for acceptance. For reliability, Cronbach's Alpha Coefficient was calculated from a pilot test with 32 students, and all scales achieved alpha values greater than 0.70, indicating satisfactory internal consistency (Agyekum et al., 2020). Therefore, the questionnaire was considered both valid and reliable for the main study.

3.3 Data Collection

The data collection process was conducted from February 27th to March 21st, 2025. The researchers distributed the invitation through two channels. The Google Form link was sent to university networks, and the researchers walked into classrooms to invite students to voluntarily participate in the study. Concerned about research ethics, the researchers informed the participants that all contacts and information would be confidential.

3.4 Data Analysis

The data analysis framework incorporates descriptive statistical measures, including the Priority Need Index (PNI) and mean values. The PNI, as elucidated by Buasuwan (2018), serves as an analytical tool to quantify the discrepancy between current situations and expectations in needs assessment. Hence, PNI helps to generate results that represent how participants expect to see the future compared to current practices, as mentioned below.

$$PNI\ modified = (I - D)\ /D \quad (1)$$

'I' stands for 'Important' or 'Current' while 'D' indicates the degree of success referring to 'Expectation'. Consequently, this study aims to elucidate the prevailing mindset, values, and self-regulatory practices of participants, juxtaposed with their anticipated English language proficiency outcomes.

In addition to the Priority Needs Index (PNI) analysis, this study employed a Spearman's rank-order correlation matrix to examine the relationships among growth mindset, intrinsic value, and self-regulation. Spearman's correlation is a nonparametric measure suitable for evaluating the strength and direction of association between ordinal variables, making it particularly appropriate for Likert-scale data typically used in educational and psychological research (Schober et al., 2018). By applying this method, the present study was able to capture interrelationships among the three psychological constructs, providing a deeper understanding of how increases in one factor (e.g., growth mindset) tend to align with improvements in another (e.g., self-regulation), thereby informing the design of integrated interventions in EFL learning contexts.

4. Results

This section presents the key results to address the research objective, "to determine gaps between the perceptions of current performance or practices of English-major students in Thailand and expectations for the future of their English learning achievement". The questionnaire data gathered from 231 respondents were analyzed. The output consists of descriptive statistics, including the mean, standard deviation, and frequency.

4.1 Students' Perceived Current and Expected Levels of Psychological Factors

4.1.1 Growth Mindset

The responses to 10 questions assessing students' growth mindsets in relation to English language learning practice and expectations for their future outcomes were analyzed to gain insights into their beliefs about language learning and personal development. These questions aimed to explore whether students believe that their English proficiency could be improved through effort, practice, and the use of effective strategies. They also addressed students' attitudes toward challenges, feedback, and long-term goals related to English learning.

The analysis focused on identifying patterns in students' self-perceptions, such as their willingness to persist despite difficulties, openness to constructive criticism, and belief in gradual improvement over time. Responses were evaluated to determine the extent to which students embrace a growth-oriented view of their language learning journey, as opposed to a fixed mindset that sees ability as static and unchangeable, as shown in Table 3.

Table 3. The Results of Descriptive Statistics and Priority Needs Index on Growth Mindset (*n*=231)

Items	Current (D)		Expectation (I)		Mean Diff	PNI Modified	Rank
	Mean, Fqc	Std. Deviation	Mean, Fqc	Std. Deviation			
Q 1. I believe that I can develop my English skills through hard work and effort.	4.45, 114 level 5	0.58	4.77, 178 level 5	0.43	0.32	0.071	1
Q 2. I view challenges in learning English as opportunities to grow.	4.63, 152 level 5	0.53	4.84, 172 level 5	0.48	0.21	0.045	3
Q 3. I believe that my English abilities can be improved over time.	4.53, 132 level 5	0.58	4.68, 163 level 5	0.52	0.15	0.033	6
Q 4. I embrace mistakes as a part of the English learning process.	4.42, 123 level 5	0.71	4.51, 142 level 5	0.70	0.09	0.020	9
Q 5. I am willing to try new strategies to improve my English skills.	4.54, 138 level 5	0.61	4.69, 166 level 5	0.51	0.15	0.033	6
Q 6. I believe that effort is more important than natural talent in learning English.	4.38, 118 level 5	0.73	4.51, 142 level 5	0.70	0.13	0.029	7
Q 7. I seek feedback to help me improve my English abilities.	4.41, 120 level 5	0.68	4.59, 148 level 5	0.59	0.18	0.040	5

Items	Current (D)		Expectation (I)		Mean Diff	PNI Modified	Rank
	Mean, Fqc	Std. Deviation	Mean, Fqc	Std. Deviation			
Q8. I believe that I can overcome difficulties in learning English with persistence.	4.42, 112 level 5	0.62	4.61, 147 level 5	0.54	0.19	0.042	4
Q9. I view criticism as an opportunity to learn and improve my English skills.	4.26, 105 level 5	0.81	4.46, 134 level 5	0.73	0.20	0.046	2
Q10. I believe that my English skills can be developed through consistent practice.	4.65, 153 level 5	0.51	4.77, 177 level 5	0.42	0.12	0.025	8

In Table 3, the different scores of descriptive statistics applied in PNI provide the meaningful results of the study. The analysis of students' perceptions toward the growth mindset factors indicated three key areas with the highest development need. The highest-ranked priority item is Q1: "I believe that I can develop my English skills through hard work and effort" (PNI = 0.071). Students generally agree with this belief, reflected in a mean score of D = 4.45 out of 5 (standard deviation of 0.58). However, their expectations for future improvement are significantly higher, with a mean score of I = 4.70 (standard deviation of 0.32). This indicates that while students firmly believe that consistent effort and hard work can lead to noticeable improvement in their English abilities, showing confidence in their capacity to grow over time. The second highest-ranked item is Q9: "I view criticism as an opportunity to learn and improve my English skills" (PNI = 0.046). Students showed a positive view of the mindset of seeing criticism as an opportunity, as shown in a mean score of D = 4.26 (Standard deviation of 0.81). However, their responses to this item reveal a high level of expectation to improve themselves more in this area, with the mean score of I = 4.46 (standard deviation of 0.73), suggesting that they aim to become better at handling criticism constructively. This result highlights a need for interventions that help students perceive feedback and criticism as constructive rather than discouraging. The third-ranked item is Q2: "I view challenges in learning English as opportunities to grow" (PNI = 0.045). Regarding the perception of viewing challenges as opportunities for growth, students reflected a very high current mean score of 4.63, which indicates a strong agreement with this mindset; however, the mean score of expectation at 4.84 suggests that students need additional reinforcement of this belief. After all, it is clear that English major students in Thailand have a strong growth mindset toward learning, yet they seek to improve themselves further. The areas of urgent need for development are especially in deepening students' perseverance, handling criticism, and reinforcing resilience in language learning contexts.

4.1.2 Intrinsic Value

This section explores the findings from a study aimed at understanding how students perceive the importance of various intrinsic value-related aspects in their English language learning experience. Drawing from the responses of 231 participants, the analysis focused on identifying which internal motivations—such as enjoyment, curiosity, intellectual stimulation, and personal fulfillment—were most valued by learners. The table below summarizes the key outcomes, highlighting both the current levels of agreement with each item and students' expectations for the future. These results help pinpoint the specific elements students see as meaningful and motivating, offering insight into what drives their sustained engagement in language learning. By comparing current perceptions with desired outcomes, the data also reveal where enhancements may be needed to better align teaching strategies with students' motivational priorities, as shown in Table 3.

Table 4. The Results of Descriptive Statistics and Priority Needs Index on Intrinsic Value (*n*=231)

Items	Current (D)		Expectation (I)		Mean Diff	PNI Modified	Rank
	Mean, Fqc	Std. Deviation	Mean, Fqc	Std. Deviation			
Q 11. I enjoy learning English for its own sake.	4.36, 110 level 5	0.68	4.55, 140 level 5	0.60	0.19	0.043	3
Q 12. I find the process of learning English to be personally rewarding.	4.24, 102 level 5	0.77	4.46, 128 level 5	0.65	0.22	0.051	2
Q 13. I am curious about the English language and its various aspects.	4.35, 116 level 5	0.72	4.53, 139 level 5	0.62	0.18	0.041	4
Q 14. I learn English because I find the language fascinating.	4.32, 113 level 5	0.75	4.43, 126 level 5	0.69	0.11	0.025	8
Q 15. I am motivated to learn English because I enjoy the challenge it presents.	4.23, 103 level 5	0.80	4.40, 120 level 5	0.70	0.17	0.040	5
Q 16. I find learning English to be a personally enriching experience.	4.65, 155 level 5	0.52	4.73, 171 level 5	0.47	0.08	0.017	9
Q 17. I learn English because I genuinely appreciate the beauty of the language.	4.10, 88 level 5	0.82	4.27, 104 level 5	0.75	0.17	0.041	4
Q 18. I am motivated to learn English because I find it intellectually stimulating.	4.31, 106 level 4	0.67	4.48, 126 level 5	0.62	0.17	0.039	6
Q 19. I study English because I enjoy expressing myself in this language.	4.18, 94 level 5	0.78	4.41, 124 level 5	0.71	0.23	0.055	1
Q 20. I am motivated to learn English because I find it personally fulfilling.	4.24, 105 level 5	0.78	4.45, 126 level 5	0.66	0.12	0.028	7

Note: PNI Modified = (I-D)/D

In Table 4, the data revealed that among all intrinsic motivation items, the top three show a strong need for self-motivation, enjoyment, and expression, rather than only focusing on achievement. First, the highest priority is Q19: "I study English because I enjoy expressing myself in this language" (PNI = 0.055). The descriptive data show that students reported a mean score of D, at 4.18 (SD = 0.78) while the mean score of I was 4.41 (SD = 0.71). These results suggest that students appreciate English as a medium of expression and most desire more opportunities to express themselves in English. Second, the second-highest priority item is Q12 "I find the process of learning English to be personally rewarding" (PNI = 0.051). For this item, the mean score of D was 4.24 (SD = 0.77), and the mean score of I was 4.46 (SD = 0.65). This finding implies that students understand some intrinsic value in their experience of learning a language, but they still need more emotional or personal fulfillment. Next, the item with the third-highest is Q11"I enjoy learning English for its own sake" (PNI = 0.043). With a mean score of D at 4.36 and a mean score of I at 4.55, it indicates that students show a strong intrinsic motivation for learning English and a desire for more enjoyment in the learning process without external reasons.

It can be inferred that intrinsic motivation influences how English-major students in Thailand engage with language learning. Apart from grades or external factors, these learners value opportunities for self-expression and emotional connection, and authentic enjoyment of the learning process. On the other hand, the data showed an existing gap between their current classroom experiences and their ideal learning environment. This reflects a need for a variety of classroom activities and teaching techniques. Activities like creative writing, collaborative discussions, and experiential projects may serve students ' needs.

4.1.3 Self-Regulation

In this study, researchers define self-regulation as behaviors such as setting learning goals, monitoring progress, managing time effectively, and maintaining focus during tasks. The in-depth analysis of these components presents both areas where students feel confident and those where they may require additional support or development. An overview of the findings about the self-regulatory skills that students identify as essential for their success can be summarized in Table 5.

Table 5. Descriptive Statistics and Priority Needs Index on Self-Regulation (*n*=231)

Items	Current (D)		Expectation (I)		Mean Diff	PNI Modified	Rank
	Mean, Fqc	Std. Deviation	Mean, Fqc	Std. Deviation			
Q21. I set specific goals for my English learning and strive to achieve them.	4.29, 104 level 5	0.75	4.54, 141 level 5	0.63	0.25	0.058	6
Q22. I regularly monitor my progress in learning English.	3.97, 97 level 4	0.82	4.32, 108 level 5	0.74	0.35	0.088	2
Q23. I seek out resources and opportunities to practice my English skills.	4.33, 105 level 5	0.68	4.55, 137 level 5	0.58	0.15	0.050	8
Q24. I create a study schedule to manage my English learning efficiently.	3.71, 82 level 3	0.96	4.15, 93 level 5	0.88	0.44	0.11	1
Q25. I reflect on my English learning experiences to identify areas for improvement.	4.25, 109 level 4	0.68	4.52, 129 level 5	0.58	0.27	0.063	5
Q26. I adapt my English learning strategies based on my strengths and weaknesses.	4.21, 117 level 4	0.70	4.52, 135 level 5	0.63	0.31	0.073	4
Q27. I actively participate in English language learning activities, both inside and outside the classroom.	3.96, 95 level 4	0.93	4.29, 112 level 5	0.81	0.33	0.083	3
Q28. I seek feedback from others to measure my progress in learning English.	4.23, 102 level 4	0.76	4.47, 132 level 5	0.70	0.24	0.056	7
Q29. I persist in my English learning efforts, even when faced with difficulties.	4.33, 105 level 5	0.68	4.52, 134 level 5	0.60	0.19	0.043	9
Q30. I take responsibility for my own English language learning and development.	4.36, 105 level 5	0.65	4.58, 139 level 5	0.54	0.22	0.050	8

Note: PNI Modified = (I-D)/D

In Table 5, the findings from the self-regulation section indicated a mismatch between the current learning management strategies, and preferred methods of engagement identified by students. The most significant priority need index was Q24: "I create a study schedule to manage my English learning efficiently" (PNI = 0.110). The statistical results reveal that item D had a mean score of 3.71 (SD = 0.96), while item I scored a mean of 4.15 (SD = 0.88), resulting in a mean difference of 0.44—the largest gap among all items within this category. This notable difference suggests that many students struggle with effectively organizing their study time. It points to a need for more structured guidance in planning and time management to support their independent efforts in learning and practicing English. The second most critical area identified was item Q22, which states: "I regularly monitor my progress in learning English" (PNI = 0.088). While students recognize the value of tracking their learning, the results indicate that they may lack practical strategies or tools for reflecting on their progress consistently. The third-highest priority, item Q27, "I actively participate in English language learning activities, both inside and outside the classroom" (PNI = 0.083), shows a similar pattern. The current mean score was 3.96 (SD = 0.93), with a higher expectation mean of 4.29 (SD = 0.70). This gap suggests that while students see the benefit of engaging in English activities beyond the classroom, they may need more motivation, accessible opportunities, or support systems to take initiative in self-directed learning contexts. Other noteworthy findings include Q26 "I adapt my English learning strategies based on my strengths and weaknesses" (PNI = 0.073), with a current mean score of 4.21 (SD = 0.70) and an expected mean score of 4.52 (SD = 0.63). Additionally, Q25 "I reflect on my English learning experiences to

identify areas for improvement" (PNI = 0.063) had a current mean score of 4.25 (SD = 0.68) and an expected mean score of 4.52 (SD = 0.58). Both of these findings indicate that students show an interest in becoming more adaptive, strategic, and reflective; however, these areas require the development of meta-cognitive skills and self-improvement. In addition to the aforementioned top-ranked items, it is imperative to highlight one aspect that stands out as the lowest-ranked need: Q29, which states, "I persist in my English learning efforts, even when confronted with challenges" (PNI = 0.043). The mean score of current practices for this item was noted at 4.33 (SD = 0.68), in contrast to the expected mean score of 4.52 (SD = 0.60). This difference indicates that students view themselves as resilient learners; they may not need immediate help to foster this area. It could be concluded that while students exhibit a strong interest in language learning, there is still a need for improving the approach to learning strategies and self-regulation of their progress. *4.2 Correlation Matrix*

Correlation Matrix

		GM_Current	IV_Current	SR_Current
GM_Current	Spearman's rho	—		
	p-value	—		
IV_Current	Spearman's rho	0.694 ***	—	
	p-value	<.001	—	
SR_Current	Spearman's rho	0.620 ***	0.792 ***	—
	p-value	<.001	<.001	—

Note. * p < .05, ** p < .01, *** p < .001

Figure 2. Correlation Matrix of Current States

The Spearman's rank-order correlation was conducted to examine the relationships among Growth Mindset (GM_Current), Intrinsic Value (IV_Current), and Self-Regulation (SR_Current) in the current condition. The results indicated strong, positive, and statistically significant correlations among all three variables. Specifically, Growth Mindset was strongly correlated with Intrinsic Value (ρ = 0.694, p < .001) and with Self-Regulation (ρ = 0.620, p < .001). Moreover, Intrinsic Value was very strongly correlated with Self-Regulation (ρ = 0.792, p < .001). These findings suggest that individuals who report a higher growth mindset also tend to place greater intrinsic value on learning and demonstrate stronger self-regulation in their current learning experiences.

Figure 3. Correlation Matrix of Expectation States

Correlation Matrix

		GM_Expectation	IV_Expectation	SR_Expectation
GM_Expectation	Spearman's rho	—		
	p-value	—		
IV_Expectation	Spearman's rho	0.683 ***	—	
	p-value	<.001	—	
SR_Expectation	Spearman's rho	0.669 ***	0.811 ***	—
	p-value	<.001	<.001	—

Note. * p < .05, ** p < .01, *** p < .001

The Spearman's rank-order correlation was conducted to examine the relationships among Growth Mindset (GM_Expectation), Intrinsic Value (IV_Expectation), and Self-Regulation (SR_Expectation) in the expectation condition. The results revealed strong, positive, and statistically significant correlations among all three variables. Growth Mindset was strongly correlated with Intrinsic Value (ρ = 0.683, p < .001) and with Self-Regulation (ρ = 0.669, p < .001). Furthermore, Intrinsic Value was very strongly correlated with Self-Regulation (ρ = 0.811, p < .001). These findings indicate that individuals who hold higher expectations for their growth mindset also tend to expect greater intrinsic value from learning and stronger self-regulation in their anticipated learning experiences.

4.3 Comparative Variables

Table 6. Comparative Variables

Variable Pair	ρ (Current)	ρ (Expectation)	Comparison Note
GM – IV	0.694 ***	0.683 ***	Slightly lower in Expectation
GM – SR	0.620 ***	0.669 ***	Higher in Expectation
IV – SR	0.792 ***	0.811 ***	Slightly higher in Expectation

Note. *** p < .001. GM = Growth Mindset; IV = Intrinsic Value; SR = Self-Regulation.

The results indicate that the correlation patterns between Growth Mindset (GM), Intrinsic Value (IV), and Self-Regulation (SR) were consistently strong and statistically significant across both the current and expectation conditions. While the values were generally similar,

slight variations were observed. The GM–IV correlation was marginally lower in the expectation condition (ρ = 0.683) compared to the current condition (ρ = 0.694), suggesting a minor decrease in the perceived link between these two constructs when respondents considered their anticipated experiences. Conversely, the GM–SR correlation increased from ρ = 0.620 in the current condition to ρ = 0.669 in the expectation condition, indicating that respondents perceived a stronger connection between growth mindset and self-regulation in their expected learning environment. Similarly, the IV–SR correlation, which was the highest among all pairs in both conditions, rose slightly from ρ = 0.792 to ρ = 0.811 in the expectation condition.

A closer examination of the GM–SR and IV–SR pairs reveals that the increased GM–SR correlation suggests that, in an ideal or desired learning environment, individuals expect their capacity for adopting a growth-oriented perspective to more directly support their ability to manage and regulate their learning processes. The consistently high IV–SR correlation underscores the critical role of intrinsic value, the degree to which learners perceive learning as inherently meaningful and rewarding via fostering self-regulation. The slight increase in this correlation in the expectation condition may reflect a belief that intrinsic motivation plays an even more prominent role in sustaining and enhancing self-regulated learning behaviors in optimal learning contexts.

5. Discussion

This research explored the perceptions of Thai English major undergraduates on three factors (growth mindset, intrinsic value, and self-regulation) that influence their language learning performance. The data collection was conducted through an online questionnaire. The obtained data were analyzed through the Priority Needs Index (PNI). The analysis indicates the differences between students' current practices in the targeted areas and their expectations for learning achievement, while the correlation analysis shows strong, positive, and statistically significant relationships among all three constructs in both current and expectation conditions. Specifically, growth mindset was strongly correlated with intrinsic value (ρ = 0.694 current; ρ = 0.683 expectation) and with self-regulation (ρ = 0.620 current; ρ = 0.669 expectation), while intrinsic value was very strongly correlated with self-regulation (ρ = 0.792 current; ρ = 0.811 expectation). These results suggest that improvements in any one factor are likely to reinforce the others, and that intrinsic value and self-regulation are particularly linked.

5.1 Bridging Gaps and Practices on Growth Mindset in EFL Classrooms

The outcomes indicated that students in Thailand have a growth mindset toward language learning, and they believe they can improve their English skills. This infers to previous studies (Degol et al., 2018; Sisk et al., 2022), which claim that a growth mindset can enhance students' motivation and effort to learn a new language. Also, Asian people, including Thai students, place a value on hard work, resilience, and effort as ways to succeed (Cheng et al., 2016). When student strongly believe that they can improve their English skills through consistent effort, they are more likely to take on challenges and remain motivated. These are key characteristics of a growth mindset that can enhance their language learning process. The correlation analysis reinforces this connection: growth mindset showed a strong and significant relationship with self-regulation in both current (ρ = 0.620) and expectation (ρ = 0.669) conditions, with a notable increase in the expectation scenario. This suggests that in an ideal learning environment, students anticipate that a stronger belief in their ability to improve will be accompanied by more effective learning management and persistence.

The top three-ranked items on growth mindset underscore that the students in this study have a strong belief in their potential to improve English skills through effort (Q1: Current Mean= 4.45), view criticism as learning opportunities (Q:9 = Current Mean= 4.26), and perceive challenges as opportunities for growth (Q2: Current Mean = 4.63). Although the current means of these items fell within the high level of agreement, the expectation means were consistently high, which resulted in positive PNI scores. This suggests that students aim to enhance their growth-oriented mindsets. They still need additional structured support and reinforcement, especially in transforming their effort value to real practices (Q1: PNI = 0.071), handling criticism (Q9: PNI = 0.046), and overcoming challenges (Q2: PNI = 0.045). This aligns with Dweck's (2017) theory of growth mindset, highlighting the necessity of ongoing feedback, effort-based praise, and opportunities to cultivate resilience in the language learning process. In an EFL context like Thailand, it is crucial to emphasize culturally sensitive strategies for fully accepting critical feedback and perceiving learning setbacks as a tool for development.

To bridge these existing gaps, teachers should emphasize the value of hard work and persistence in language learning. They also need to foster a classroom environment where mistakes are normalized as a part of the learning process (Degol et al, 2018; Dweck, 2017). Moreover, it is important for students to learn how to receive criticism or critical feedback in a positive way. Teachers can also encourage them to reflect on their learning progress through self-reflection journals, learning progress reports, peer review, and engagement with real-world tasks. Furthermore, fostering metacognitive awareness through goal-setting and self-assessment can empower students to turn their mindset into independent learning practices (Heshmati et al., 2024; Ma et al., 2024).

5.2 Needs for Sustaining Students' Intrinsic Value

In terms of intrinsic value, the three highest-ranked items suggest that the students in this study context showed high intrinsic motivation in studying English. In particular, they study English since they enjoy expressing themselves in this language (Q19: Current Mean = 4.18), find the learning process personally rewarding (Q12: Current Mean = 4.24), learn English for its own sake (Q11: Current Mean = 4.36). All of these items fell within a high level of agreement, and their expectation means were also rated highly (Q19: M = 4.41, Q12: M = 4.46, Q11: M =4.55), which resulted in moderate PNI scores (Q19: PNI = 0.055, Q12: PNI = 0.051, Q11: PNI = 0.043). These findings initially reveal a significant level of intrinsic value; however, they also highlight the need for further enhancement and support. The correlation findings show that intrinsic value is the most strongly related to self-regulation in both current (ρ = 0.792) and expectation (ρ = 0.811) conditions.

This suggests that students who view English learning as enjoyable, personally meaningful, and rewarding are more likely to engage in effective study planning, progress monitoring, and sustained learning behaviors. The slight increase in this correlation in the expectation condition indicates that in an ideal environment, students see intrinsic value as even more critical to sustaining self-regulation.

This concurred with the self-determination theory outlined by Deci and Ryan (2000), indicating that students engage the most when learning is enjoyable, purposeful, and allows for self-expression. Nonetheless, the gaps between current and expected practices show that in this study context, students desire further development in accordance with self-expression and meaningful engagement. It also suggests that these EFL students have little experience of using English inside and outside the classroom, thus they could still want more genuine and empowering tools to utilize the language for personal satisfaction. Accordingly, teachers must prioritize a learner-centered teaching approach. It allows students to have control of their learning decisions as a top priority if they are to meet their needs. This encourages student autonomy, relevance, and emotional connection to the English language as well as ownership (Berger, 2014). Moreover, teachers can incorporate cooperative assignments into their classroom instruction, such as digital content development, group discussion, presentations, and storytelling. These sorts of activities can help students with more opportunities to speak English during the learning process. This can further enhance their internal motivation (Dunn & Zimmer, 2020). Lessons should also include reflective practices since they enable students to be more conscious of their evolving relationship with the language and hence maintain their engagement over time.

5.3 Self-regulation as the Highest Priority Needs for Improvement

The findings show notable gaps between students' existing views on and their expectations for self-regulation. The data reveal that the highest-ranked items (Q24, Q22, and Q27) demonstrate significant high PNI scores, which range from 0.083 to 0.110. The scores highlighted the three most essential areas of need revealed in the questionnaire survey. Among all the items, Q24 emerged as the top priority, holding a current mean score of 3.71 and an expected mean score of 4.15, resulting in a PNI of 0.110. It suggests an absence of a well-structured study plan for acquiring English language skills. Next, Q22, while showing lower engagement, ranked as the second highest need after Q24. It has a current mean score of 3.97, leading to a PNI of 0.088. This indicates a need for support in monitoring progress in learning English. Finally, Q27 ranked third, with a current mean score of 3.96, an expected mean score of 4.29, and a PNI of 0.083. The gap indicated by this item suggests that students may not have enough opportunities to practice English in class, or they might not be motivated to learn English without teacher support. Therefore, it may be recommended that the students receive training in autonomous learning or develop the habits of independent language learners. The correlation analysis confirms that self-regulation is not an isolated skill but is strongly tied to both growth mindset and intrinsic value. Its strong link with intrinsic value ($\rho = 0.792$ current; $\rho = 0.811$ expectation) indicates that students' ability to manage their learning is closely connected to the degree to which they find learning personally meaningful. Similarly, the increased correlation between growth mindset and self-regulation in the expectation condition suggests that when students believe they can improve through effort, they also expect to manage their learning more effectively in an optimal environment.

As a result, the study identified self-regulation as a significant barrier to improving English learning outcomes in the EFL context in Thailand. Since self-regulation constitutes a fundamental component of student learning and aligns closely with personal values and goals (Junaštíková, 2023; Ahsan, 2023), teachers or educators should prioritize training in this area. To begin with, promoting study planning skills (e.g., time allocation, study scheduling, and routine building) should be the primary focus. These skills could be integrated into program orientation or preparation course activities before the start of the semester. The tools were a planner, a digital calendar, and weekly goal worksheets can enable students to develop these habits. Additionally, incorporating metacognitive strategy training in classroom instruction is essential, as these strategies empower students to actively engage in the learning process. Teachers can encourage ongoing reflection, study-progress report, and self-evaluation by incorporating activities such as journal reflection, student portfolios, and mid-term self-assessment tasks into the curriculum. It is equally important to use motivation as a drive for learning achievement. When teachers promote students' motivation, it leads to fostering persistence and a sense of responsibility (Broadbent et al., 2022). For instance, assigning self-monitoring tasks related to long-term goals and encouraging students to set their own objectives at the beginning of the course can be effective strategies. Lastly, it is essential to establish a system to increase self-regulation within the classroom (Zhang & Zou, 2022). The implementation of a learning buddy system can enhance mutual accountability that allows students to support one another in monitoring and improving their self-management behaviors. Implementing these strategies enables educators to improve students' self-regulation and overall learning.

6. Implications and Limitations of the Study

This study is based entirely on data from a self-reported questionnaire survey, with analysis conducted using the Priority Needs Index (PNI) alongside Spearman's rank-order correlation. This combined approach had clear benefits: the PNI helped to pinpoint the gap between students' current and expected states for the three psychological factors under investigation—growth mindset, intrinsic value, and self-regulation, while the correlation analysis shed light on how strongly these factors are linked. Nevertheless, certain constraints remain. Self-report measures can be affected by social desirability, limited self-awareness, or misunderstandings of particular survey items. In addition, while the PNI highlights priority areas for instructional attention and the correlation analysis reveals the strength of relationships, neither method explains why these gaps exist or how students' "ideal" perceptions translate into their learning behavior and outcomes. As such, the findings should be interpreted as indicative rather than definitive. To gain deeper insight into the causes and processes behind these patterns, future research could incorporate interviews, focus groups, classroom observations, or longitudinal designs.

The findings offer several takeaways for EFL teaching, curriculum development, and policy in Thai higher education. The consistently

strong correlations among growth mindset, intrinsic value, and self-regulation—particularly the robust link between intrinsic value and self-regulation suggesting that progress in one area can bolster the others, creating a ripple effect in learning outcomes. For practitioners, this means designing interventions that address these factors in combination rather than isolation. For example, classroom tasks that encourage self-expression can strengthen intrinsic value, resilience-oriented activities can reinforce a growth mindset, and structured learning management exercises can build self-regulation. Curriculum developers might weave goal-setting activities, reflective journals, and peer feedback into course design so that students' beliefs, motivation, and self-management. These skills are developed together. At the policy level, these results inform teacher training programs, ensuring that instructors have strategies to foster all three constructs in an integrated way, ultimately supporting more sustainable language learning achievement.

7. Conclusion

This research was a quantitative study that aimed to investigate students' perceptions about psychological factors, including growth mindset, intrinsic values, and self-regulation, as they related to language learning outcomes, and the relationships among growth mindset, intrinsic value, and self-regulation differ between the current and expected states of the students. Descriptive statistics and PNI analysis were used to analyze the data and identify the priority needs for instructional improvement. A Correlation Matrix was used to analyze the relationships among three variables. The findings indicate that English major students in Thailand mostly have a growth mindset and intrinsic values in language learning, which support their confidence in their ability to improve and achieve proficiency in English. In addition, the findings highlight that the most significant need is to foster self-regulatory strategies among EFL students in Thailand; they still lack confidence in learning management, self-monitoring, and independent learning. Therefore, teachers and universities may focus on promoting self-regulated learning strategies by using various instructional techniques that are suited to students' needs. Moreover, the findings of a Correlation Matrix analysis indicate that the growth mindset and self-regulation correlation was represented as higher in expectation; therefore, educators should create opportunities to enhance learners' linkage between the growth mindset and self-regulation.

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