

CHAPTER 4

RESULTS OF THE STUDY

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

Table 4.1 Results of the Study

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

Table 4.1 Results of the Study (Cont.)

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

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

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

Table 4.2 Language Mindset of Thai Undergraduate Students

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

The items with asterisk were performed after reverse scoring.

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

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

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

Table 4.3 Foreign Language Speaking Mindset of Thai Undergraduate Students

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

The items with asterisk were performed after reverse scoring.

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

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

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

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

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

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

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

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

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

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

4.2.1 Results from the Foreign Language Speaking Mindset Inventory

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

4.2.1.1 Results of Exploratory Factor Analysis

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

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

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

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

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

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

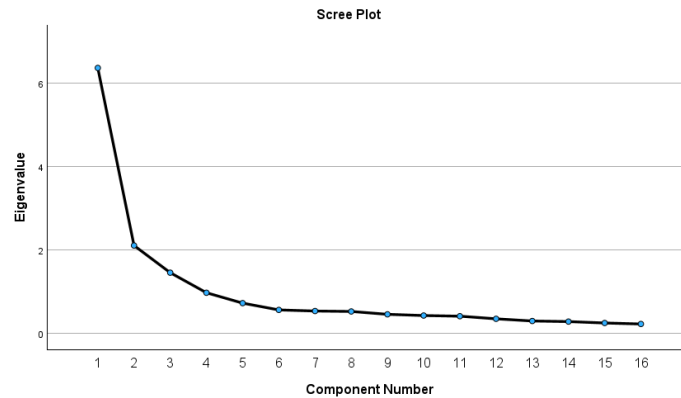


Figure 4.1 Scree Plot of Component Extraction

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

Table 4.5 Rotated Component Matrix and Communalities

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

Extraction Method: Principal Component Analysis.

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

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

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

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

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

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

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

Table 4.6 Test of Normality (Stage 1)

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

a. Lilliefors Significance Correction

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

Table 4.7 Relationship of Language Mindset and Foreign Language Speaking Mindset

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

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

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

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

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

Table 4.8 Test of Normality (Stage 2)

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

a. Lilliefors Significance Correction

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Table 4.11 Themes Derived from Guided Journals

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

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

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

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

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

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

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

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

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

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

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

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

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

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

4.3.3.2 Effort and Its Role in Foreign Language Learning and Speaking

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

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

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

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

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

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

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

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

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

4.3.3.3 Attribution of Failures in Foreign Language Speaking

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

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

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

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

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

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

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

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

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

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

4.3.3.4 Achievement Goals and Behavior in the Classroom

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

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

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

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

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

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

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

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

4.3.3.5 Interpretation of Failures and Mistakes and Emotional Experience

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

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

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

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

4.3.3.6 Self-Regulatory Tendencies and Perception of Feedback

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

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

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

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

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

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

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

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

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

4.3.3.7 Emotional Experience Related to Foreign Language Speaking

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

4.3.3.8 Students' Perception of Factors Influencing Foreign Language Speaking

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

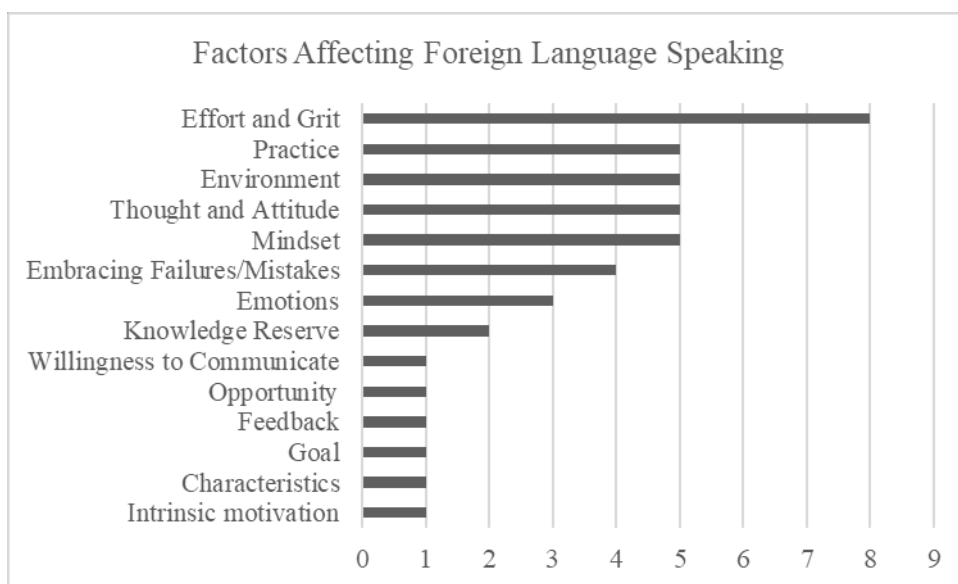


Figure 4.2 Factors Affecting Foreign Language Speaking

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

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

4.4.1 The Results of the Language Mindset Intervention

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

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

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

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

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

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

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

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

a. Lilliefors Significance Correction

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

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

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

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

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

Asterisk Indicates Significance

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

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

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

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

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

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

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

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

4.4.2 The Results of the Q-Methodology

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

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

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

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

Table 4.17 Factor Loadings of 19 Participants

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

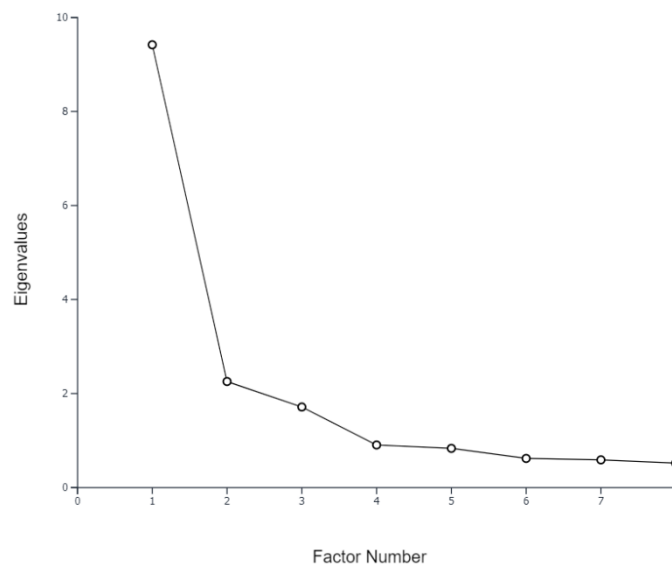


Figure 4.3 Eigenvalues of Factors

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

Table 4.18 Loadings Table with Defining Sorts Flagged

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

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

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

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

Table 4.19 Free Distribution Data Results

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

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

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

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

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

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

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

Table 4.21 Distinguishing Statements for Perspective A

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

P < 0.05: Asterisk Indicates Significance at P < 0.01

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

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

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

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

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

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

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

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

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

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

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

Table 4.23 Distinguishing Statements for Perspective B

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

P < 0.05 : Asterisk Indicates Significance at P < 0.01

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

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

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

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

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

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

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

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

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

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

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

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

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

Table 4.25 Distinguishing Statements for Perspective C

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

P < 0.05 : Asterisk Indicates Significance at P < 0.01

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

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

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

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

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

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

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

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

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

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

4.4.3 The Results from the Semi-Structured Interview

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

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

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

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

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

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

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

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

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

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

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

4.5 Summary of the Chapter

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