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Vietnamese learners' mindsets about EFL speaking and role of demographic factors: A survey of university students

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ABSTRACT

Language mindsets - beliefs about whether language learning ability is immutable or malleable - have received much attention in psychology and education research due to their vital role in learners' motivation and achievement. Despite this, research on the language mindsets regarding specific language skills has been under-explored. This study aims to fill this gap by focusing on mindsets about EFL speaking of Vietnamese tertiary students and examining the role of demographic factors in their mindsets. The study employed the mixed-methods approach using a language mindset survey and a semi-structured interview. 226 EFL students at a public university were recruited, using a convenient sampling technique, to respond to the survey. Purposive sampling was also employed for the interviews. Findings revealed that most students endorsed a growth mindset about EFL speaking while over one-third held a mixed mindset. Female students endorsed greater growth mindsets about EFL speaking than male counterparts, whereas more male students demonstrated a mixed mindset than did female students. However, there was no statistical relation between the language mindsets and demographic variables. The study implies that foreign language pedagogy should foster growth mindsets while cultivating mixed mindsets to promote EFL speaking among students.

1. INTRODUCTION

Language mindsets or learners' beliefs about the malleability of the ability to learn a language have recently emerged as a psychological construct in second language learning research due to their significant impact on motivational processes (Dweck, 1999, 2006; Mercer & Ryan, 2010; Ryan & Mercer, 2012; Lou & Noels, 2016, 2017; Dweck & Yeager, 2019). Many studies have found correlations between language mindsets and other motivational factors, namely self-regulation and emotional responses (Waller & Papi, 2017; Shirvan et al., 2021; Ozdemir & Papi, 2022). Learners'

mindsets were also found to be predictors of second language achievement (Lou et al., 2021). This construct, according to Lou and Noels (2019a), can change inter-individual and intra-individual, and it is affected by different factors in different situations (Lou & Noels, 2017; Wilson & English, 2017). However, factors influencing language mindsets have been under-explored. Additionally, extensive research has modeled the role of general language mindsets in second language learning, but a dearth of research has been conducted on language mindsets regarding learning specific language skills.

In Viet Nam, where English as a Foreign Language (EFL) plays a crucial role in the country's global integration, the demand for proficient English speakers is urgent. Its educational goal thus emphasizes training students to be good at both professional knowledge and the ability to communicate in English. Over the years, much attention has been paid to English teaching innovations. However, given its crucial role in foreign language learning, learners' language mindsets have received scant attention, let alone learner mindsets about learning specific skills like speaking. The study by Nguyen (2021) for EFL high school students' general language mindsets and their learning outcomes showed that the students tended to hold growth mindsets that correlated positively but weakly with learning outcomes. Another study by Nguyen (2023) showed that students' language mindsets had no relation to demographic factors. Given that language mindsets influence language achievement (Lou et al., 2021), research on learners' mindsets about EFL speaking is significant. This issue, however, remains under-explored in the literature as well as in the Vietnamese context.

Within that background, this study was conducted to extend an understanding of learners' language mindsets and influential factors. Specifically, it seeks to focus on learners' mindsets about English speaking learning by examining the Vietnamese undergraduate students' beliefs about EFL speaking and how they are associated with their demographic features. The research questions include:

- What mindsets about EFL speaking do Vietnamese university-level students endorse?
- What is the relationship between the students' language mindsets about EFL speaking and demographic factors such as gender, geographic background, and academic discipline?

1.1. Mindsets, language mindsets, and EFL speaking mindsets

A psychological concept, mindsets are defined as lay or implicit beliefs or core assumptions about whether personal traits like intellectual abilities are fixed or malleable (Dweck & Leggett, 1988; Dweck, 1999; Dweck & Yeager, 2019). According to Dweck et al. (1995), mindsets are categorized according to entity and incremental views. A person endorsing an entity theory regards human intelligence as an unchangeable and predetermined trait, thus believing that skills and abilities are

relatively stable. In contrast, a person holding an incremental perspective typically believes that an individual's intelligence, skills and abilities can be developmental, changeable or improved with effort, strategies, and help from others (Dweck et al., 1995; Dweck, 2006; Mercer & Ryan, 2010). Equivalent terms like fixed mindset and growth mindset were then used respectively in replacement of entity theory and incremental theory (Dweck, 2006).

However, Lou et al. (2017) argued that the framework of fixed-versus-growth mindsets might not explore the whole picture of change beliefs because this framework solely underscored change beliefs of individual intelligence in a unidirectional manner, which referred to beliefs about growth (i.e. positive change) and ignored beliefs about declination (i.e. negative change). Therefore, they extended Dweck's mindset categorization by suggesting an alternative trichotomous framework of implicit theories of intelligence which consists of fixed, growth (positive change) and decremental (negative change) mindsets. Learners with decremental mindsets believe that their ability can be negatively changed or decreased if they lack sufficient effort. The learners then might set goals to prevent their ability loss.

As for language learning, language mindsets refer to "the extent to which a person believes that language learning ability is dependent on some immutable, innate talent or is the result of controllable factors such as effort and conscious hard work" (Mercer, 2012, p. 22). Lou and Noels (2017) defined language mindsets as "learners' beliefs about language ability" (p. 1) and whether their language ability is fixed or malleable (Lou & Noels, 2019c). Individuals with a fixed language mindset believe that mastering a language requires a special talent pertaining to language aptitude, meaning the ability to learn a foreign language is innate and immutable. It is also commonly believed that adults find it more difficult to acquire a new language than children owing to biological constraints (Horwitz, 1988; Mercer & Ryan, 2010). In contrast, people holding a growth language mindset believe that their success in language learning involves effort. In order to uncover the complexity of language mindsets, Lou and Noels (2017) proposed a language mindset framework under the lens of the Language Mindset Inventory (LMI) as a 2-factor model. This framework comprises two beliefs (incremental beliefs/growth mindset and entity beliefs/fixed mindset) across three related but distinct aspects: general language intelligence beliefs (concerning

largely the native language), second language aptitude beliefs (i.e. beliefs about the ability to learn a second language), and age sensitivity beliefs about language learning.

Language learners hold diverse personal beliefs about the nature of language learning, including learning specific linguistic skills. It is widely accepted that, among four key linguistic skills, speaking is considered as the most essential skill to be acquired in second language learning (Rao, 2019). The term “speaking” has been defined from different aspects. Based on its features, speaking is a productive skill and considered as “a popular form of expression which uses the un-prestigious colloquial register: literacy skills are on the whole more prized” (Bygate, 1987, p. 3). Burns and Joyce (1997) emphasized speaking as an interactive process of meaning construction involving producing, receiving, and processing information. Furthermore, Gumperz (1999) argues that speaking is cooperatively constructed based on contributions, assumptions, expectations, and interpretations of the participants’ utterances. Viewing from its function, Chaney and Burk (1998) remarked, speaking as “the process of building and sharing meaning through the use of verbal and non-verbal symbols, in a variety of contexts” (p. 13). Additionally, Nunan (1991) describes speaking as a verbal communication for mostly interpersonal and somewhat transactional purposes while Nazara (2011) defines speaking as “a specific spoken discourse which is primarily social and engaged in for social purposes and in social contexts” (p. 31). With that complex nature, in the present study, the term “speaking” describes a verbal way of communication and a productive skill, and mindsets about EFL speaking refer to learners’ beliefs about their ability to learn English speaking skills as a foreign language. Learners with a growth mindset in EFL speaking believe that their ability to learn to speak English language could be improved through efforts, whereas learners displaying a fixed mindset believe that an inborn talent is crucial for mastering EFL speaking.

1.2. Functions and characteristics of language mindsets

Dweck (2016, p. 11) claimed, “the view you adopt for yourself profoundly affects the way you lead your life. It can determine whether you become the person you want to be and whether you accomplish the things you value.” Dweck (2006) further explained, “mindsets frame the running account that is taking place in people’s heads. They guide the

whole interpretation process” (p. 209). As such, when people are aware of mindsets, they will see how a belief that qualities are fixed or cultivatable leads to a host of different thoughts and actions. In other words, the type of mindsets learners hold plays a crucial role in learning (Molden & Dweck, 2006; Lou & Li, 2017). Particularly, students who believe that their intellectual capacity can be improved are motivated to develop their competence when they attempt their best whereas students believing that intelligence is unchangeable or stable are motivated to validate competence and avoid challenging situations in learning (Hong et al., 1999; Burnette et al., 2013).

Molden and Dweck (2006) also argued that mindsets were the core beliefs in the meaning system that help individuals make sense of their learning experience. To highlight the importance of language mindsets in language learning motivation, Lou and Noels (2019c) suggested a Language Mindset Meaning System (LMMS) including the growth-oriented and fixed-oriented meaning subsystems, and language mindsets as a key factor to explain how individuals make sense of their L2 learning experiences. Mindsets might guide students’ thoughts, feelings and actions toward situations in language learning (Lou & Noels, 2019a). These two subsystems comprise cognitive and affective components that make differences in mindset-driven motivational processes. Growth mindsets are associated with positive values toward confidence, mastery goals, controllable attribution, positive effort beliefs, and self-improvement strategies, whereas fixed mindsets are linked to negative cognitive and affective factors such as anxiety, performance goals, negative effort beliefs and self-defensive strategies.

Characteristics of language mindsets have recently been discussed. Mindsets are domain-specific, so language mindsets are distinct from other mindsets (Lou & Noels, 2017). For example, people displaying a weak growth language mindset can have a strong growth mindset in other intellectual domains like music, athletics or math (Dweck et al., 1995; Leslie et al., 2015). Lou and Noels (2017) suggested that language mindsets are related to but distinct from mindsets in the fields of math, sports, and general intelligence. Researchers consent that the nature of language mindsets is domain-specific (Mercer & Ryan, 2010; Ryan & Mercer, 2012; Lou & Noels, 2019b; Shirvan et al., 2021). L2 students with growth mindsets about the skills of reading and speaking might have relatively fixed mindsets about

L2 writing. For instance, Mercer and Ryan (2010) conducted a case study with first-year EFL students in Austria and Japan to explore the role of mindsets in foreign language learning contexts. Their findings proved that students endorsed different mindsets across different domains such as music, sport, geography and language learning. Even a student may have different mindsets about specific skill domains or aspects of the language. Thus, a learner's mindset about speaking skills can probably be distinct from his or her mindset about writing. Khajavy et al. (2021) examined whether the L2 reading mindset is distinct from the general language mindset. The participants were 489 university students studying different majors at a university in Iran. Their findings illustrated that individuals might endorse both mindsets (i.e. fixed and growth mindsets) and that general language mindsets and L2 reading mindsets were distinct from each other.

Additionally, mindsets in the language domain seem more complicated than in other domains since learners' beliefs about their language learning ability generally derive from multiple beliefs including beliefs about general verbal intelligence in the native language, beliefs about second language aptitude and beliefs about age and language learning ability (Mercer & Ryan, 2010; Lou & Noels, 2019c). Moreover, even though language mindsets are conceptualized as relatively stable beliefs, they are differentiated in specific socio-cultural contexts. For instance, students in European countries tended to endorse fixed mindsets while students in Asian countries were more likely to hold growth mindsets (Mercer & Ryan, 2010).

Language mindsets, however, are found to change within short-term scales according to circumstances (Lou & Noels, 2016; Lanvers, 2020). For example, the experimental study of Lou and Noels (2016) revealed that students' language mindsets might be temporarily primed through mock articles promoting either entity language theory or incremental language theory. Besides, students can shift their language mindsets and goals in response to different social situations instead of holding only one mindset system consistently across all contexts. The study of Leith et al. (2014) indicated that students tended to have more fixed mindsets in situations where performance goals were focused. In brief, language mindsets are characterized as the construct of domain specificity and dynamic complexity. By understanding these theories, we

can gain insights into how language learners make sense of their learning experiences.

1.3. Research on language mindset and its relationship with demographic factors

Although previous research reveals that language mindsets can be classified into fixed and growth, recent studies in different educational settings demonstrated that language learners' mindsets are multifaceted and that mindset patterns of L2 learners cannot be simply categorized as fixed or growth (Mercer & Ryan, 2010; Irie et al., 2018; Lou & Noels, 2019a; Haukås & Mercer, 2021; Lou et al., 2021; Yao et al., 2021).

Lou et al. (2021) explored the complexity of foreign language learners' mindsets and learners' engagement and achievement through the integration of motivational constructs including achievement goals, language use anxiety, reappraisals of challenges and persistence. This descriptive study employed a person-centered approach, and a sample was 234 university-level students aged from 17 to 34 from a western Canadian university. The findings showed that 57.7% of foreign language learners endorsed a mixed mindset profile which seemed to be excluded in previous studies. The mixed mindset learners were likely to adopt multiple goals.

In the context of EFL education, Shirvan et al. (2021) conducted a qualitative study to examine the development of the language mindset of EFL students regarding L2 writing and their relevance to motivation in Iran. Their findings showed that most participants endorsed fixed and growth mindsets but to various degrees and that EFL students' mindsets about L2 writing were distinct from other linguistic skills like speaking or listening. In China, Yao et al. (2021) carried out a study to investigate junior high school students' language mindset patterns ($n = 646$) and their correlation with perceived English competence, using Lou and Noels' (2017) language mindsets inventory as the instrument. They found that the students' language mindsets were classified into three complex patterns, including growth (36.4%), slight growth (51.1%) and fixed (12.5%). The growth mindset students had the highest perceived English competence, followed by slight-growth mindset students and fixed-mindset students, respectively. They also explained that the slight-growth mindset might be driven by some cultural factors, such as preferences for middle response styles in Chinese culture. Additionally, both growth mindset and slight-growth mindset

students were more motivated, optimistic and resilient to the challenging situations in language learning.

The relationship between mindsets and demographic features has been further explored with a focus on gender, and mixed findings have been revealed, depending on specific fields of study (Diseth et al., 2014; Lou & Noels, 2017; Macnamara & Rupani, 2017; Schlender et al., 2020; Zarrinabadi et al., 2021). Specifically, there are generally three main views on mindsets of intelligence: (1) male students had more growth mindsets of intelligence than did their female counterparts (Diseth et al., 2014), (2) female students were significantly more likely to endorse a growth intelligence mindset compared to male counterparts (Macnamara & Rupani, 2017; Schlender et al., 2020; Huang & Xie, 2021), and (3) male and female students did not diverge significantly on their mindsets (Henderson et al., 2017; Sigmondsson et al., 2021)

In language education, Zarrinabadi et al. (2021) investigated the language mindsets of 320 EFL students across gender and language groups. Their findings suggested that female second language (L2) students endorsed more growth mindset than male L2 students, but no significant differences in mindsets were found among female and male third language (L3) students. Additionally, male students in both L2 and L3 groups had more fixed mindsets than female ones. On the other hand, recent studies have shown contradictory results regarding the relationship between mindsets and gender. Lou and Noels (2017) found that gender played a minimal role in learners' language mindsets. In language learning, Nguyen (2023) examined the connection between EFL high school students' language mindsets and demographic variables (i.e. genders, school groups and grade groups) in the Vietnamese context (n = 248). The statistical results showed no significant difference in the relation between students' language mindsets and demographic features.

In short, although studies have been conducted on intelligence mindsets in general and patterns of language mindsets in different educational settings with diverse groups of participants (e.g. high school students, university students), there has been limited research on EFL university-level students' patterns of mindsets about learning EFL speaking especially in the context of Vietnam. Also, previous works report inconsistent and varied results about correlations between language mindsets and

demographic features. Therefore, a study on Vietnamese EFL tertiary students' mindsets about speaking and the role of demographic factors might extend the extant literature about language mindsets. Also, this study contributes to providing insights into the characteristics of the language mindsets of EFL tertiary students in the Mekong Delta region of Vietnam. In addition to gender, two other significant demographic features (i.e. home origin and field of study) and their influential roles were investigated in the current study.

2. METHODS

2.1. Research design

The current study employed a mixed-methods sequential explanatory design to investigate Vietnamese tertiary students' language mindsets about EFL speaking and any potential correlation between language mindsets about EFL speaking and demographic variables in terms of genders, geographic background and majors. The quantitative survey was first conducted, followed by a semi-structured interview. The mixed methods approach was opted for because it allows researchers to investigate complex problems such as students' language mindsets (Creswell, 2018). By integrating multiple data sources, we can gain a more complete and in-depth understanding of students' mindsets rather than a single-method approach (Greene, 2007; Creswell, 2018; Creswell & Plano, 2018).

2.2. Participants

The participants were recruited by using convenient and purposive sampling. The target population was EFL students from a large public university in the Mekong Delta of Vietnam. Their majors varied, such as Land Management, Sociology, Environmental Science, and others (e.g. Hydraulic Engineering, Fisheries Management, Environment and Natural Resources Management, Environmental Engineering, Administrative Law, and Agricultural Economics). The participants came from both urban and rural areas. To recruit participants, we contacted the leaders of the schools to ask for permission and the administrator of the university to obtain the students' email addresses. Then, an online form of survey accompanied by a consent form was created. The students were informed of the research purposes, their rights and measures to protect their privacy. To ensure an equal number of demographic factors for exploration, we approached different schools in the university whose student populations varied in the ratio of

female and male students. Out of 236 students who completed the survey, 226 participants were chosen for the data analysis.

Table 1. Descriptive statistics of participants

Categorization		Sample size	%
Gender	Female	113	50
	Male	113	50
School group	Urban	113	50
	Rural	113	50
Major	Land Management	45	19.9
	Sociology	55	24.3
	Environmental Science	63	27.9
	Others	63	27.9

The participants of the qualitative phase were selected through a two-stage procedure. In the first stage, the researchers identified the patterns of language mindsets about EFL speaking by calculating the summed mean scores of all participants based on their responses to the questionnaire and then by selecting a few respondents displaying different dimensions of patterns. In the second stage, five respondents were selected as representatives, using a maximal variation strategy (Creswell & Guetterman, 2018). All the participants voluntarily participated in the study.

Geographic features

Based on Law No. 30/2009/QH12 on Urban Planning, issued on June 17, 2009, the urban area is defined as an area with a dense population mainly engaged in non-agricultural economic activities. This territorial region includes inner city and suburbs, for a city; inner town and outskirts, for a town; and townships.

Similarly, Decree No. 57/2018/NĐ-CP regarding mechanisms and policies to encourage enterprises to invest in agriculture and rural areas, issued on April 17, 2018, described a rural area as an administrative territorial area excluding wards within towns, districts, and cities.

As such, in the current study, the urban groups comprise those who originate from wards within towns, districts and cities, whereas the rural groups are students from the others (e.g. sub-municipal towns, sub-townships, and communes).

2.3. Instruments

The questionnaire was utilized as the instrument to investigate students' mindsets about EFL speaking

and the targeted demographic information. To measure language mindsets about EFL speaking, we adapted the Language Mindset Inventory (LMI) by Lou and Noels (2017) which was developed based on the theoretical framework of the implicit theory of intelligence (Dweck et al., 1995). The LMI consisted of three sub-themes: (1) general language intelligence beliefs, (2) second language aptitude beliefs and (3) age sensitivity beliefs about language learning (see Table 2). More particularly, to fit the aim of the study, the terms "English speaking" or "to speak English" were interchangeably used in replacement of the terms "new languages" in aspect of second language aptitude and age sensitivity beliefs about language (e.g. "You cannot change how capable are you at learning to speak English." (item 8) or "No matter how old you are, you can always improve your ability to learn to speak English" (item 14)).

The questionnaire consists of 18 statements, six statements for one factor. The participants rated the extent to which they agreed or disagreed with the 18 items on a scale of 6-point Likert scale (strongly disagree, moderately disagree, slightly disagree, slightly agree, moderately agree, and strongly agree). The fixed mindset items about EFL speaking are reverse-coded, such that higher mean scores represent stronger growth (versus fixed) language mindsets (Dweck, 1999; Lou & Noels, 2020; Sato, 2022; Yu et al., 2022). If the individual respondent's mean score is 3 or below, he or she will be classified into a fixed mindset. The individual respondent will be categorized into a growth mindset if his or her mean score is 4 or above (Dweck et al., 1995). Additionally, it is suggested identifying individuals' language mindsets by both indexes to fully observe the mindset construct. Hence, using the 2-factor model (Lou & Noels, 2017) to demonstrate the construct of mindsets about EFL speaking will be relevant to this study because of their full clarification of the underlying theories of the construct.

The questionnaire of the LMI in English was translated into Vietnamese, and the academic terms were explicitly explained to ensure the participants' clear understanding. To check the validity, the questionnaire was sent to the researcher's colleagues and students for comments and suggestions. The translation was cross-checked by another researcher in English teaching and learning, and no information was missed during translation.

Table 2. The structure of LMI

Sub-clusters	Items
Fixed-oriented general language beliefs	Item 1, 3, 5
Growth-oriented general language beliefs	Item 2, 4, 6
Fixed-oriented aptitude beliefs about EFL speaking	Item 8, 10, 11
Growth-oriented aptitude beliefs about EFL speaking	Item 7, 9, 12
Fixed-oriented age sensitivity beliefs about EFL speaking	Item 13, 16, 18
Growth-oriented age sensitivity beliefs about EFL speaking	Item 14, 15, 17

We employed follow-up interviews to explore further explanations for patterns of mindsets about EFL speaking. The interviews were conducted in Vietnamese and carefully recorded to ensure sufficient and accurate information.

2.4. Data collection and analysis

As for the quantitative data collection, the current study was conducted during the summer term at school, so the researchers found it hard to meet all the participants in person. As such, we contacted the academic advisors of the existing classes at different schools in the university to support to delivery of the questionnaire to the prospective participants. The participants completed an online questionnaire about mindsets about EFL speaking and their demographic information (i.e. gender, homeland, and major) via Google Forms. 226 students responded to all questions in the questionnaire, and 10 respondents missed information. Thus, a total of 226 responses were chosen for data analysis. Next, based on the quantitative findings, we purposively selected the prospective participants displaying different dimensions of patterns of mindsets about EFL speaking for the follow-up interview which lasted between 30 and 40 minutes. The researchers interviewed five respondents endorsing a mixed mindset about EFL speaking. The purpose of the interview was to reconfirm the patterns of mindsets about EFL speaking and to discover further explanation. Thus, the protocol for the interview was developed based on three sub-clusters of LMI. That is, the participants were supposed to confirm their responses to the survey questionnaire and further explain their choices.

The quantitative data was analyzed by SPSS 20. First, we examined the scale reliability of LMI by calculating Cronbach's Alpha coefficients for three sub-dimensions of the LMI. Afterwards, we estimated students' language mindsets about EFL speaking using descriptive statistics. To obtain the type of mindset, the participants hold, fixed-mindset items were reversed. Then the mean scores were obtained for the total of 18 items. To identify the

patterns of students' mindsets about EFL speaking, the fixed-oriented items were code-reversed. As aforementioned, the mean scores of 3 or below were classified as a fixed mindset, and the mean scores of 4 or above were classified as a growth mindset. The mean scores between 3 and 4 were categorized as a mixed mindset. Finally, we explored the connection between students' language mindsets about EFL speaking and demographic variables using Pearson's *Chi-square* test. Before running the correlation test, the mindset mean scores were recoded into fixed, growth or mixed categories. The qualitative data analysis was carried out in several steps. We first transcribed the interviews and read all the data carefully to have a general sense of the information. Then, we analyzed the verbatim transcript of the interviews and categorized the data into groups depending on the source of information. Next, we started coding all the data and gathered them into categories to develop themes.

3. RESULTS AND DISCUSSION

3.1. Results

3.1.1. Language mindsets about EFL speaking

The LMI was found to have a high internal consistency reliability with Cronbach's Alpha of fixed-oriented items = .914 and of growth-oriented items = .894, respectively. As shown in Table 3, the students indicated a moderate level of agreement on the malleability of one's language intelligence in learning EFL speaking. The mean scores of growth-oriented items (items 2, 4, 6) were above 4 and ranged from 4.525 to 5.015. Additionally, the mean scores of items presenting fixed-oriented general language beliefs (items 1, 3, 5) were below 3 and ranged from 2.611 to 2.841.

Similarly, with respect to aptitude beliefs about EFL speaking, the results showed that the mean values of items presenting growth-oriented aptitude beliefs about EFL speaking (items 7, 9, 12) ranged from 4.991 to 5.049, all of which are above 4. Meanwhile, the mean scores of fixed-oriented items (items 8, 10, 11) displayed between 2.535 and 2.712, all of which

are below 3. This can be concluded that the respondents slightly agreed on the improvement of their ability through effort and denied the need for innate ability in learning EFL speaking.

Table 3. Descriptive statistics of items presenting mindsets about EFL speaking before item reversal

Sub-clusters	Mean	Std. Deviation
General language beliefs		
Item 1	2.611	1.4753
Item 2	5.035	1.0395
Item 3	2.810	1.5243
Item 4	5.044	1.0361
Item 5	2.841	1.6496
Item 6	4.801	1.2111
Aptitude beliefs about EFL speaking		
Item 7	5.049	1.0165
Item 8	2.535	1.4851
Item 9	5.004	1.0132
Item 10	2.535	1.5088
Item 11	2.712	1.5060
Item 12	4.991	1.0241
Age sensitivity beliefs about EFL speaking		
Item 13	3.801	1.3132
Item 14	4.602	1.1816
Item 15	4.491	1.1822
Item 16	2.748	1.4946
Item 17	4.482	1.0841
Item 18	3.088	1.5029

(1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree)

With reference to beliefs about the importance of age in learning EFL speaking, the mean values of items presenting growth-oriented beliefs (items 14, 15, 17) ranged from 4.482 to 4.602. It means the respondents showed a slight disagreement on the importance of age in learning EFL speaking. On the contrary, the mean scores of items displaying fixed-oriented beliefs ranged from 2.748 to 3.801. This means the respondents tended to believe that to some extent age influences the ability to learn to speak English.

All in all, the findings showed that the respondents showed agreement on the malleability of one's language intelligence and denied the importance of innate ability as well as age in learning EFL speaking at different levels. In other words, the

respondents tended to move to a growth-oriented mindset about EFL speaking.

After the fixed-oriented items were reversed, the results were displayed in Table 4. Based on frequency statistics, 147 out of 226 students (65%) had a mean score above 4, showing that they endorsed a growth mindset, while 79 out of 226 respondents (35%) held mixed mindsets, with mean scores ranging between 3.17 and 3.94. No fixed mindsets about EFL speaking among the respondents were found.

Table 4. Descriptive statistics of patterns of mindsets about EFL speaking after item reversing

	Frequency	%	Min.	Max.
Growth-oriented	147	65	4.00	6.00
Mixed-oriented	79	35	3.17	3.94
Number of valid cases	226	100		

Evidence from follow-up interviews indicated that the respondents believed either natural talent or efforts are equally important. With respect to general language beliefs, one student said, "I agree that language intelligence can be changed but I disagree all people can always change their language intelligence because some people like adults cannot improve their language intelligence even though they have strived their best." (Student 3). To a similar extent, another student admitted, "If someone tries hard, he or she can improve his/her language intelligence, but not all people can significantly improve their language intelligence because their capacity is limited." (Student 1). To add more to the argument, this interviewee claimed that "If one's language intelligence is limited, he can improve it by learning experiences from others through communication." (Student 1). It could be inferred that language intelligence might be context-bound.

For aptitude beliefs about EFL speaking, the responses also supported the importance of individual characteristics as well as effort. One of the interviewed students mentioned in his responses that "The natural talent is crucial, but it is just a part of learning English speaking. If a student makes enough efforts, I think his/her English-speaking ability can be improved." (Student 5). Another student further explained, "I agree that innate ability is necessary for students to learn English speaking, but although you have your natural talent, you

cannot change your English speaking if you are not self-confident.” (Student 1).

With reference to age-sensitivity beliefs about EFL speaking, the students’ views were different. To demonstrate, two out of five interviewed students said.

“I agree that your ability to learn English speaking can be malleable, but it also depends on the age. Your ability cannot be significantly improved after the age of 70 – 80 because you will soon forget what you have learned.” (Student 2)

“I slightly agree that no matter how old you are, you can always improve your ability to learn English speaking. If a learner is too young (e.g. aged from 8–0), he/she finds it hard to learn English. He/she can learn English, but it is impossible to improve their English speaking significantly”. (Student 3)

This student also added that adult students aged above 50 also cannot improve their English speaking because of their eroded memory. Moreover, one respondent claimed that “No matter how old you are, you possibly improve your ability to learn to speak English, but not all people can improve their ability. Some people can, but some cannot.” (Student 1). In the meantime, one participant explained, “I think age can influence one’s ability to learn English speaking, but if you try to study hard, you can improve your ability to some extent.” (Student 4).

Interestingly, it was also found that learners might possess different mindsets across different skill domains. For instance, a learner might hold a fixed mindset about EFL speaking but a growth mindset about vocabulary. To illustrate, one respondent said, “You have to possess an inborn talent for English

speaking. However, you might find it hard to speak English fluently or communicate in English if you do not have enough vocabulary.” (Student 1). In contrast, a learner might endorse a growth mindset about speaking, but a fixed mindset about pronunciation. Supporting this point, another interviewee responded, “You can improve your English speaking through efforts, but if you do not have your talent for pronunciation, you cannot speak English fluently even though you work hard.” (Student 4). To conclude, students with a mixed mindset about EFL speaking believed that one’s success in learning EFL speaking did not involve solely effort and inborn talent.

3.1.2. Demographic factors and students’ mindsets about EFL speaking

Since the literature indicated contradictory findings, it was hypothesized in this study that there was no correlation between students’ mindsets about EFL speaking and demographic variables (genders, homeland and majors) at the significance level of 95%. Pearson’s *Chi-square* tests were statistically calculated to examine whether students’ mindsets about EFL speaking were linked to demographic features.

Variance of language mindsets about EFL speaking in terms of gender

Descriptively, there was a slight difference in gender within the same pattern of mindsets about EFL speaking. Specifically, in terms of growth mindset, more female students (54.4%) endorsed growth mindsets than male counterparts (45.6%). In contrast, more male students (58.2%) held mixed mindsets about EFL speaking compared to female ones (41.8%).

Table 5. Descriptive statistics of patterns of mindsets about EFL speaking by genders

		Pattern		Total
		mixed mindset	growth mindset	
Gender	male	Frequency	46	113
		% within Gender	40.7%	100.0%
		% within Pattern	58.2%	50.0%
	female	Frequency	33	113
		% within Gender	29.2%	100.0%
		% within Pattern	41.8%	50.0%
Total		Frequency	79	226
		% within Gender	35.0%	100.0%
		% within Pattern	100.0%	100.0%

However, the findings from the *Pearson Chi-square* test showed that p was 0.07, higher than 0.05. This value indicates the null hypothesis is supported. It

can be concluded that there was no significant correlation between genders and students’ mindsets about EFL speaking, as Table 6 indicates.

Table 6. The statistical results of correlation between mindsets about EFL speaking and genders

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.289 ^a	1	.070		
N of Valid Cases	226				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 39.50.

b. Computed only for a 2x2 table

Variance of language mindsets about EFL speaking in terms of homeland

Descriptively, the results in Table 7 showed that more respondents in the rural area (58.2%) had a

mixed mindset than those who came from the rural areas (41.8%), whereas more participants in the rural area (54.4%) endorsed a growth mindset than their counterparts in the urban region (45.6%).

Table 7. Descriptive statistics of patterns of mindsets about EFL speaking by homeland

		Pattern		Total
		mixed mindset	growth mindset	
Hometown	rural	Frequency	33	113
		% within Homeland	29.2%	100.0%
		% within Pattern	41.8%	50.0%
	urban	Frequency	46	113
		% within Homeland	40.7%	100.0%
		% within Pattern	58.2%	50.0%
Total		Frequency	79	226
		% within Homeland	35.0%	100.0%
		% within Pattern	100.0%	100.0%

The *Pearson Chi-square* test was also calculated to explore the correlation between mindsets about EFL speaking and homeland. As shown in Table 8, we found that the respondents' mindsets about EFL

speaking did not significantly correlate with their homeland ($p = .07$, meaning the null hypothesis was accepted).

Table 8. The statistical results of correlation between mindsets about EFL speaking and homeland

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.289 ^a	1	.070		
N of Valid Cases	226				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 39.50.

b. Computed only for a 2x2 table

Variance of language mindsets about EFL speaking in terms of academic discipline

Based on frequency statistics, the findings demonstrated that there was a slight difference in the same patterns of mindsets about EFL speaking by majors. As for growth mindsets, those whose major was Environmental Science endorsed it the most

(28.6%), followed by other majors (25.2%) while both students majoring in Land Management and Sociology held it the least (23.1%). Regarding the pattern of mixed mindsets, students from other majors endorsed the mixed mindset most (32.9%), followed by either Sociology or Environmental Science (26.6%), and Land Management (13.9%), respectively (Table 9).

Table 9. Descriptive statistics of patterns of mindsets about EFL speaking by majors

		Pattern		Total
		mixed mindset	growth mindset	
Major	Land Management	Frequency	11	45
		% within Major	24.4%	100.0%
		% within Pattern	13.9%	23.1%
	Sociology	Frequency	21	55
		% within Major	38.2%	100.0%
		% within Pattern	26.6%	23.1%
	Environmental Science	Frequency	21	63
		% within Major	33.3%	100.0%
		% within Pattern	26.6%	28.6%
	Others	Frequency	26	63
		% within Major	41.3%	100.0%
		% within Pattern	32.9%	25.2%
Total	Frequency	79	147	226
	% within Major	35.0%	65.0%	100.0%
	% within Pattern	100.0%	100.0%	100.0%

Additionally, the correlation between students' mindsets about EFL speaking and majors was explored using the *Pearson Chi-square test*. It was clearly shown in Table 10 that a significant correlation between these two variables was not found ($p = .306$, $df = 3$).

Table 10. The statistical results of the correlation between mindsets about EFL speaking and majors

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.616 ^a	3	.306
N of Valid Cases	226		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.73.

3.2. Discussion

The purpose of this study was to investigate the patterns of students' mindsets about EFL speaking, the findings indicated students tended to endorse a growth mindset. This result is in accordance with the previous research by Nguyen (2023) in which Vietnamese high school students endorsed a greater growth language mindset. The study result is also consistent with the study of Mercer and Ryan (2010) and Yao et al. (2021) in the sense that Asian students (in collectivistic cultures) tend to develop a growth language mindset whereas students in European countries (in individualistic cultures) are more likely to demonstrate a fixed language mindset. This could be due to cultural value differences. Vietnamese students in collectivistic culture are profoundly

affected by Confucianism, which lays emphasis on the importance of effort and persistence in the pursuit of goals (Lou & Noels, 2017). In Confucian-influenced culture, continuous effort is also considered as the most important attribute for learners' success in their study (Zhang, 2008). The students in this study believed that their ability to learn EFL speaking can be malleable if they are persistent and strive hard enough in learning.

Additionally, the results demonstrated no students held a fixed mindset whereas the pattern of a mixed mindset about EFL speaking was found, which is not in line with prior quantitative studies on language mindset displaying growth, slight growth and fixed mindsets (Yao et al., 2021) or fixed, mixed and growth mindsets among EFL students (Lou et al., 2021). This finding supports the claim that learners cannot be solely classified into fixed and growth language mindsets (Mercer & Ryan, 2010; Irie et al., 2018; Lou et al., 2021). Additionally, this finding also differs from what Shirvan et al. (2021) found regarding students' mindsets on L2 writing categorized as fixed and growth mindsets. The present study does not support the viewpoint of Dweck and Molden (2013) that approximately 40% of people tend to endorse a growth mindset, 40% a fixed mindset and 20% a mixed mindset, respectively. Therefore, the results in the present study, together with those of several other researchers (e.g. Mercer & Ryan, 2010; Ryan & Mercer, 2012; Lou & Noels, 2019b; Khajavy et al., 2021; Shirvan et al., 2021) provide a body of evidence that mindsets about EFL speaking are

domain-specific or distinct from general language mindsets and other linguistic skills.

The finding of this study showed students' mindsets about EFL speaking did not significantly correlate with demographic variables in terms of gender and homeland, which is in line with the findings by Nguyen (2023) and Henderson et al. (2017). Similarly, mindsets about EFL speaking were not associated with student majors. Nonetheless, the results indicated the proportion of female students with a growth mindset about EFL speaking is higher than that of male ones. This is consistent with the study of Zarrinabadi et al. (2021) who reported more females endorsed a growth mindset in L2 learning compared to their male counterparts. It was also found that the rural group had much greater growth mindsets about EFL speaking than the urban group, while the urban group reversely endorsed a slightly greater mixed mindset compared to the rural group. Additionally, tertiary students majoring in Environmental Science with a growth mindset accounted for the highest proportion. These findings might provide the first empirical evidence regarding specific linguistic skill mindsets in association with demographic features in EFL learning.

4. CONCLUSION

This mixed-methods study investigates the patterns of Vietnamese tertiary students' mindset about EFL speaking and examines whether a correlation exists between students' mindset about EFL speaking and demographic variables, namely genders, place of origin and majors. It can be concluded from the empirical evidence that the majority of students endorse a growth mindset about EFL speaking, in which they believe that their ability to develop English speaking ability can be nurtured through sufficient efforts. Over one-third of students hold a mixed mindset, reflecting a significant picture of mindset dynamics. Prior research highlights the

significance of a growth mindset in improving educational outcomes (Yeager et al., 2019; Khajavy et al., 2021; Lou et al. 2021), so it is suggested that language teachers should not only raise students' awareness of developing growth mindsets but also employ teaching practices or actionable strategies (e.g. assisting students to set up mastery goals or giving constructive feedback) to cultivate students' growth mindsets. Also, mindsets about EFL speaking are characterized as a domain-specific construct, which helps to confirm the domain specificity of mindset. Therefore, this research not only provides practical insights into EFL education but also contributes to the extant literature in terms of mindsets about EFL speaking.

Additionally, for a deeper understanding of mindset in EFL teaching and learning, it is advisable that further studies concerning mindsets in relation to socio-cultural characteristics, since socio-cultural values might have a certain influence on mindsets (Mercer & Ryan, 2010; Lou & Noels, 2019). More importantly, there should be further research in this scope with larger and more diverse samples like English-majored students or different linguistic skills (e.g. listening, reading, writing) to gain deeper insights into Vietnamese EFL students' language mindsets in university contexts. It is worth saying that the present study is exploratory and illuminative since it is limited to the analysis of non-majored English students in the context of Viet Nam, where language mindset is rather novel and still under-explored.

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