



The Effect of Learning Strategy and Self-Efficacy on Speaking Competence of Higher Vocational College Students: Anxiety as a Mediator

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ABSTRACT

The three key affective and cognitive factors that affect sustainable language learning are learning strategy, self-efficacy, and learning anxiety. The ability to speak English is becoming increasingly important, particularly among students in higher vocational colleges in China. The purpose of this study is to investigate the relationship between learning strategy, self-efficacy, learning anxiety, and speaking competence among Chinese college EFL students in China. It further seeks to understand whether anxiety acts as a mediating variable in the relationship between learning strategy and speaking competence, and between self-efficacy and speaking competence. This study proposes a model that incorporates learning strategy, self-efficacy, anxiety, and speaking competence for English language learners. A survey questionnaire was used to gather data from college students. The questionnaires were sent to 493 Chinese college students using a random sampling approach. The results showed that learning strategy, learning anxiety, and self-efficacy had a significant relationship with speaking competence. Anxiety mediated the relationship between self-efficacy and speaking competence, and between learning strategy and speaking competence. Thus, when learners have a high degree of self-efficacy, they have a low level of English language anxiety. Additionally, the more strategies students use, the less anxiety they have, resulting in better speaking performance.

Keywords: Anxiety; Learning strategy; Self-efficacy; Speaking competence; Vocational college students; Social Inclusion; Sustainability,

1. Introduction

Higher Vocational English, a vital course in China's Higher Vocational Education curriculum structure and includes both basic English and vocational English for work. Its purpose is to help students strengthen their ability to use English in real-world circumstances, notably speaking and listening (Gu, 2022). Higher vocational college students are expected to acquire the oral proficiency in English required for daily and business activities in other countries. Students also lay the foundations for future English studies. This course in vocational colleges also seeks to help learners acquire effective English learning techniques and improve their speaking skills to increase their overall cultural literacy (Tadayon & Khodi, 2016) and professional development (Ma et al., 2021; Wang, 2023).

The model of English teaching has shifted from teacher-centered to student-centered (Jiao & Simon, 2022; Ni, 2008; Wang, 2014). Individual learning variations are being studied increasingly (Gardner & MacIntyre, 1993; Ellis, 1994). As a result, in China, the most recent version of the High Education English Curriculum Standard (2017 Edition) demands teachers to facilitate students in developing their learning strategies actively and purposefully. Teachers have a responsibility to reduce students' learning anxiety, enhance their learning efficiency, and promote their ability to study independently. (2011, p.8).

Some learners may find the process of learning a foreign language to be difficult and discouraging (Ryan & Deci, 2009; Shirvan & Talebzadeh, 2018). This is probable due to individual differences, which have been studied in the literature from different perspectives and in different contexts. These variables include affective factors like motivation, anxiety, personality, and self-efficacy in addition to sociodemographic factors (Kim & Wang, 2014; Sardegna, Lee & Kusey, 2018; Shin, 2018). An increasing amount of research indicates that learning strategies (Lestari & Wahyudin, 2020; Anggarista & Wahyudin, 2022; Oxford, 2018) and self-efficacy (Anam & Stracke, 2020; Sardegna, Lee & Kusey, 2018; Shin, 2018) aid in language acquisition. Foreign language anxiety is a complex emotional factor in the process of language learning, and this view has been emphasized in the current body of anxiety research (Hewitt & Stephenson, 2012; Woodrow, 2006; Yan & Horwitz, 2008). Self-efficacy, learning style, and anxiety are a few more variables that may be used to predict speaking performance when learning a foreign language (Khodi et al., 2021).

2. Literature Review

2.1 Learning strategy

Learning a language takes time and is a hard process for learners to complete. To learn a new language, particularly a second language, students must be able to use an approach or method for learning and acquiring the language quickly. Learning a foreign language is not just about memorizing knowledge; rather, it is about learning by doing. Consequently, various researchers have undertaken research and studies on language learning strategies. Oxford (1993, p.1) defines a learning strategy as “the actions, behaviors, or techniques that students use to promote second language learning and that learners are aware of in most contexts”. The individual characteristics of learners as well as situational and contextual factors will affect the choice of strategies (Ellis, 1994). The former encompasses beliefs about language acquisition, emotional states, learning experiences, and learner characteristics such as age, ability, learning style, and motivation. The latter involves the accomplishment of the task, the context, and the goal language. Chamot (2005), O'Malley and Chamot (1990) define learning strategies as distinct mental and verbal techniques used by learners to acquire and apply language. Wong and Nunan (2011) discussed how learning strategy helps learners get more productive and learner-centred. Similarly, Macaro (2001) stated that knowledge and implementation of strategies will lead to more successful proficiency in languages.

Good learners of languages are those who are competent in English and can utilize the language effectively. Language proficiency and accomplishment are linked to language learning strategies (Oxford, 1989). According to Su's study (Agustin, Wahyudin & Isnaini, 2021), language learners generally employ appropriate learning techniques, and use language learning strategies that improve their learning outcomes. All learners use specific types of language learning strategies, but the frequency and selection of strategies differ. Chamot and Kupper (1989) found that all students with strong language ability used language learning strategies; nevertheless, what distinguished effective language learners from less effective language learners was the variety of tactics as well as how the strategies were applied. Successful or proficient language learners employed tactics that were more relevant and varied and helped them perform the language effectively. (Cohen & Henry, 2019). Tigarajan et al. (2016) found that while learners use a variety of language learning strategies to become proficient, individual preferences for specific strategies vary among learners.

2.2 Anxiety

Anxiety is a feeling of worry, nervousness, or unease about something with an uncertain outcome. Speaking anxiety, specifically, is defined as the difficulty in expressing thoughts in front of a group of people (Samuelsson, 2011). Basic (2011) provides a more detailed description, noting that speech anxiety often manifests through physiological symptoms because one's fear of oral communication. This anxiety can impair one's ability to speak effectively, as it hinders the focus needed for verbal expression. According to Horwitz (1986, p. 128), learning anxiety is a complicated issue that affects behavior as well as emotion when it comes to language acquisition. It can originate from both the learner's internal and external sources (Ohata, 2005; Piechurska-Kuciel, 2008). For example, ideas about language learning (Bernat & Gvozdenko, 2005) or an individual's self-perception in the context of language learning, especially when facing other students or an instructor, can be the source of internal anxiety in language learners; Furthermore, it has been suggested that perfectionism and competition also contribute to linguistic anxiety (Gregersen & Horwitz, 2002). Teachers' perceptions of students (Piechurska-Kuciel, 2008, p. 69), teachers' teaching style (Von Worde, 2003; Pswlak, 2014) and teacher assessment of students (Gkonou, 2013) are sources of external concern. The majority of researchers have discovered that anxiety can make it more difficult to learn (Horwitz & Garza, 1999; Jiao & Simon, 2022, Bollinger, 2017; Tian & Mahmud, 2018; Tsui & Cheng, 2022), on the other hand, anxiety can also have a beneficial impact on the process of learning English, as appropriate specific learning anxiety can improve learning (Scovel, 1978; Oxford, 1999).

Students' fear can also be sparked by teachers' inappropriate methods of instruction (Santoso & Perrodin, 2022). Worde (2003) argues that the method by which teachers correct their students' mistakes may cause them to become anxious when speaking. Students felt uneasy when the teacher interrupted them to address their speaking errors. According to Sato (2003), learners may be unwilling to practice speaking in class if the teaching puts too much emphasis on forms rather than content. This may reduce their confidence in speaking

because they are more concerned about accuracy. As a result, their inability to blend in with their peers may manifest, impeding their growth in speaking. Given the recommendations of the scholars mentioned earlier, teachers may play a crucial role in reducing students' fears of verbal output.

2.3 Self-efficacy

Bandura's social-cognitive theory defined the concept of "self-efficacy" to relate to one's belief in their ability to perform tasks (Bandura, 1997). It is believed that after completing a task, people gain confidence and self-esteem, and they anticipate another excellent effort in the future (Greene, 2017). Moreover, those who are confident in their capacity to learn particular abilities and perform specific jobs are more likely to put out great effort in their work, whereas negative comments from others could cause self-doubt and a focus on personal deficiencies when they face new challenges. In EFL research, self-efficacy has been identified as a significant predictor of language learning strategies, motivation, and outcomes. A high degree of self-efficacy is associated with exceptional performance in several language learning tasks (Chen, 2020). In an ongoing investigation conducted by Harris and Leeming (2022), it was found that during one academic year, both students' ability to communicate in English and speaking self-efficacy increased, despite the fact that the two experimental groups had been subjected to different teaching strategies.

Based on Bandura's self-efficacy theory, Altin (2019) investigated how learning styles affected secondary school students' speaking anxiety, foreign language proficiency, and self-efficacy (Khodi, 2021). The findings revealed that teaching techniques raised students' self-efficacy beliefs in English and reduced their fear when speaking English. The Self-Efficacy Scale is a new instrument that Zhang (2019) developed. Self-efficacy beliefs may affect several facets of speaking performance and can be regarded as an influencing factor for an area of communicative competence. Studies on self-efficacy primarily focus on a variety of topics, including motivation, anxiety alleviation methods, language acquisition tactics, and linguistic achievement (Khalilzadeh & Khodi, 2021). Some research found a link between high levels of self-efficacy and excellent performance in language acquisition activities (Rahimi & Abedini, 2009; Liu, 2013; Wang, Kim, Bong & Ahan, 2013; Rahimi & Abedini, 2009; Liu, 2013; Wang et al., 2013).

Ghoonsoly et al., (2012) discuss how college students' self-efficacy affects their English achievement. According to Başaran and Cabaroğlu (2014), learners with little English proficiency believe they are unable to acquire the language based on instructor observations in the classroom. A large body of research has validated this insight on self-efficacy in foreign language learning (Khodi et al., 2022), with significant findings indicating an association between students' self-efficacy and English achievement (Tanaka & Ellis, 2003). Low level of self-efficacy in students may decrease their academic progress (Caprara et al., 2003). They prefer to neglect the plan for completing the objective or assignment because they believe that everything they do will lead them down the incorrect path or provide unsuccessful results (Khodi et al., 2024). Students with high self-efficacy are more likely to work harder, assess their own educational method, and engage in self-regulation, all of which contribute to their academic achievement (Pajares & Schunk, 2001).

2.4 Speaking competence

Certain literature aimed at enhancing oral communication skills has garnered significant attention in research circles. Speaking competence is all about being able to effectively share your thoughts and ideas in different situations. It involves skills like clear pronunciation, fluency, and using the right language for the context. Nunan (1987) conducted a study in communicative language classes. The classroom-based study discovered a paucity of communicative patterns of engagement (Alavi et al, 2021). The contribution of Communicative Language Teaching to the development of communicative competence was investigated at two Thai institutions in a study by Bruner, Sinwongsawat, and RadicBojanic (2015). The research identified possible methods for improving the spoken English skills of university students in Thailand who lack proficiency in the language. Muslem et al., (2017) investigated utilizing video clips to assess whether students showed enhancement in their speaking abilities. The researchers concluded that the video clips were more effective in improving students' speaking skills when they collaborated in groups rather than working individually on the tasks.

Previous research examined how learner beliefs, motivation, and anxiety each contribute to enhancing foreign language learning results (Ellis, 2008; Ketenci, Calandra, Margulieux & Cohen, 2019; Woodrow, 2006; You & Dörnyei, 2016; Zimmerman, 2002). Although research has been conducted on the relationship between learning strategy (Al-Qahtani, 2013; Aiusheeva & Guntur, 2019) self-efficacy (Genc, Kulusakli & Aydin, 2016; Leeming, 2017) learning anxiety (MacIntyre & Gardner, 1991b; Tridinanti, 2018) and speaking competence, researchers have been discussed how three elements can influence ESL/EFL college students' speaking skills, especially learning anxiety as a mediator. Furthermore, most previous research has focused on anxiety and self-efficacy linked with general types or levels of them, rather than English speaking, despite the strong correlation between affective factors and foreign language learners, the current study discusses all the constructs that are found to be crucial for speaking competence rather than concentrating on just one or the interactions between the two, few studies have systematically examined how learning strategy, self-efficacy and learning anxiety concurrently influence speaking competence, especially in a higher vocational environment.

2.5 The hypothesized model and research hypothesis

The purpose of this study is to investigate the relationship of learning strategy, self-efficacy, learning anxiety and speaking competence among Chinese college EFL students. And the mediating role of anxiety between learning strategy and speaking competence, between self-efficacy and speaking competence, as well as to provide significant consequences for improving students' English speaking ability. The following figure 1 is the proposed model.

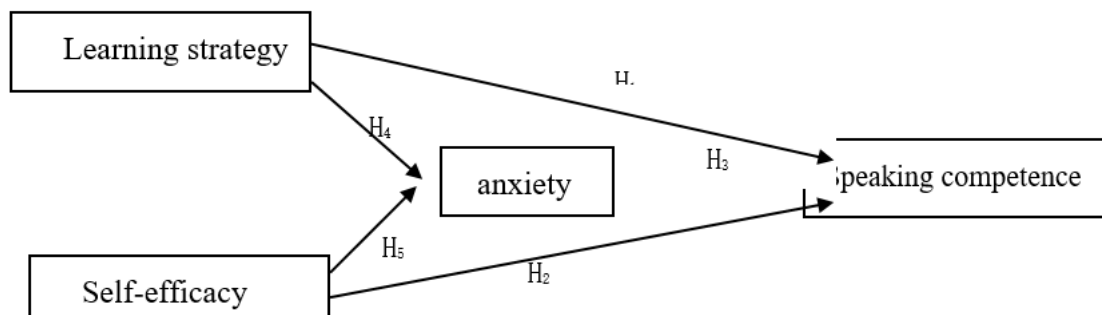


Figure 1. The hypothesized model

The present study suggests a model that includes learning strategies, self-efficacy, anxiety and speaking competence (Figure 1). The hypothesized model reflects the important role of learning strategy, self-efficacy, anxiety on speaking competence. The proposed model highlights the important predictive role of learning strategy, self-efficacy and anxiety on English speaking, as well as the mediating effect of learning anxiety.

Based on these relationships, the following research hypotheses were formulated:

H1: Learning strategy has a significant influence on speaking competence.

H2: Self-efficacy has a significant influence on speaking competence.

H3: Anxiety has a significant influence on speaking competence.

H4: Anxiety plays a mediating role in the relationship between learning strategy and speaking competence.

H5: Anxiety plays a mediating role in the relationship between self-efficacy and speaking competence.

3. Methodology

3.1 Participants

The targeted population of this research are students who are fully employed in public colleges in Heilongjiang Province, China, which are from different programs. All of them are enrolled for 3 years and each student has studied English for at least 9 years. The survey included 493 students (male= 228). They're required to finish their mandatory course on public English learning. Since the study data was gathered at the end of the third semester, the participants were thought to have enough experience to answer all of the survey questions, particularly those associated with language learning strategy, anxiety, self-efficacy, and speaking proficiency. All of the participants agreed to take part in this study.

3.2 Research Instruments

The survey form was accompanied by a cover letter, and possible procedures were taken to protect the respondents' identities. The first section is about the personal information of respondents. The second section has 28 items based on a five-point Likert scale from 'strongly disagree' to 'strongly agree'. The independent variables include learning anxiety (seven items), self-efficacy (seven items), and learning strategies (seven items), and the dependent variable speaking competence has seven items. Table 1 showed the questionnaire sources.

Table 1. Questionnaire Sources

Self-Efficacy	The items adapted from the general self-efficacy scale by Schwarzer and Jerusalem (1995).
Learning Strategies	The items adapted from the Oxford (1990a).
Anxiety	The items adapted from Horwitz, Horwitz and Cope (1986), the English Learning Anxiety Scale (ELAS).
Speaking Competence	The items adapted from Yufrizal, Hery (2017).

3.3 Data collection procedure

The data for this study was analyzed with SPSS 27.0 and Process v4. The researchers delivered the questionnaire to students in Heilongjiang Province, China, using the Wenjuanxing online platform. The

questionnaire was a method used to gather data in which respondents were given a survey to complete and then answer to it (Mashulah, 2013). All students participated in the questionnaire voluntarily.

4. Results and Finding

In this research, the dependent variable -speaking competence- was measured based on the three independent variables which are learning strategy, self-efficacy and anxiety. There are 28 items in the section. The means, standard deviation and Pearson Product –Moment Correlation Analysis were show as Table 2.

Table 2. The means, standard deviation and Pearson Product –Moment Correlation Analysis

Variable	Mean	SD	speakin g	Selfefficacy	Learning strategy	anxiety
speaking	3.366	0.813	-			
self-efficacy	3.389	0.815	.547**	-		
learning strategy	3.294	0.804	.532**	.580**	-	
anxiety	3.299	0.787	-.527**	-.528**	-.540**	-

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

Table 2 presents the findings of the inter-correlation study between each independent variable and speaking competency. A very positive correlation was found between learning strategy and speaking competency ($r=0.532$, $p<0.05$). There is also a significant positive correlation between self-efficacy and speaking competence ($r=0.547$, $p<0.05$). In contrast, a significant negative correlation was observed between anxiety and speaking competence ($r=-0.527$, $p<0.05$). Additionally, there is a significant negative correlation between learning strategy and anxiety ($r=-0.540$, $p<0.05$), as well as between self-efficacy and anxiety ($r=-0.528$, $p<0.05$).

Based on the correlation coefficient, $r=0.51$ to 0.7 (Chua, 2013, p.258), the correlation strength between learning strategy, self-efficacy, anxiety and speaking competence is interpreted as moderate. Table 3 showed the results.

Table 3. Inter-correlation Analysis between learning strategy, self-efficacy, anxiety and speaking competence

Path	Pearson Correlation (r)	p value	Strength
Self-efficacy-->Speaking competence	.547	<0.001	Moderate
Learning strategy>Speaking competence	.532	<0.001	moderate
Anxiety>Speaking competence	.527	<0.001	moderate

Source: (Chua, 2013, p.258)

The findings concluded that learning strategy and speaking competence, self-efficacy and speaking competence, and anxiety and speaking competence all exhibited a moderate strength association. Furthermore, there was a negative correlation between the variable learning anxiety and speaking competency, and a significant positive correlation between the variables self-efficacy and learning strategy with speaking competence. To determine which influence factor contributes most to speaking competency, the stepwise multiple regression method was applied. The criterion variable in this study is the mean score for speaking competency, learning strategy, self-efficacy, and anxiety. The results of the multiple regression analysis are displayed in Table 4.

Table 4. Multiple Regression (Stepwise) on learning strategy, self-efficacy, anxiety to speaking competence

Variables	B	β	t	p	R ²	contribution	Results
Self-efficacy	0.276	0.277	6.166	0.000	0.299	29.90%	significant
Learning strategy	0.237	0.234	5.163	0.000	0.283	28.30%	significant
anxiety	-0.263	-0.254	-5.847	0.000	0.277	27.70%	significant

a. Dependent Variable: speaking

The multiple regression analysis result displayed in Table 4 suggested that there were three predictors in the model. The dominant predictor is self-efficacy ($\beta=0.277$; $t=6.166$, $p=0.000$). The result was significant at the significant level of $p < 0.05$ with the $R^2 = 0.299$, which indicated that self-efficacy contributes 29.9% of the variance in speaking competence. Based on the standardised Beta value, if self-efficacy increases by one

standard deviation, speaking competence increases by 0.299 standard deviations. According to Muijs (2011, p.126), this beta value represents a moderate effect. As a result, it is possible to conclude that self-efficacy has just a moderate impact on speaking skill. Predictor of learning strategies with $\beta=0.234$; $t=5.163$, $p=0.000$, the study found that the learning strategies accounts for 28.3% of the variance in speaking competency ($R^2 = 0.283$, $p < 0.05$). It means increase the learning strategies by one unit of standard deviation results in a 0.283 unit improvement in speaking competence. As a result, it is reasonable to conclude that learning strategies has a moderate effect on speaking competence. The learning anxiety ($\beta=-0.254$; $t=-5.847$, $p=0.000$), $R^2 = 0.277$ showed that the finding was significant at the level of $p < 0.05$ and learning anxiety accounts for 27.7% of the variance in speaking competence. The standardised Beta value indicates that speaking ability will rise by 0.277 units of standard deviation for every unit of standard deviation that learning anxiety increases. This beta value was evaluated as having a moderate effect size. Therefore, it is possible to draw the conclusion that speaking competency is moderately impacted by learning anxiety.

A mediation analysis was employed to determine whether learning strategies influences speaking competence through anxiety. Tables 5 and 6 illustrate the results of Process Macro Model No. 4, which considered learning strategy as an independent variable, speaking competence as a dependent variable, and anxiety as a mediator.

Table 5. Mediation effect by Process

step	DV	ID	R	R-sq	F	β	t	p
1	anxiety	strategy	0.540	0.292	202.031	-0.529	-14.214	0.000
2	speaking	strategy	0.532	0.283	193.687	0.537	13.917	0.000
3	speaking	strategy	0.603	0.364	140.142	0.353	8.161	0.000
		anxiety				-0.349	-7.898	0.000

Table 6. Bootstrap mediating effect analysis

Path	Effect	LLCI	ULCI	P	Percentage	result
Indirect effect	0.184	0.109	0.276	0.001	34.20%	Partially mediation

The findings suggested that anxiety partially regulated the association between learning strategy and speaking competence. The bootstrapping was used to investigate if learning anxiety had a statistically significant mediating impact. The bootstrapping sample size had been set at 10,000, and findings indicated that the value of the mediated effect and the 95% confidence interval (CI) did not include 0, implying that the mediating effect of learning strategy leading to speaking competence through learning anxiety was statistically significant (95% CI [0.109, 0.276]). Therefore, Hypothesis 4 was supported, proving that the higher the level of learning strategy, the lower the learning anxiety and the higher the speaking competence.

Tables 7 and 8 illustrate the results of Process Macro Model No. 4, which used self-efficacy as an independent variable, speaking competence as a dependent variable, and learning anxiety as a mediator.

Table 7. Mediation effect by Process

step	DV	ID	R	R-sq	F	β	t	p
1	Anxiety	Self-efficacy	0.528	0.279	189.798	-0.510	-13.778	0.000
2	Speaking	Self-efficacy	0.547	0.299	209.495	0.546	14.474	0.000
3	Speaking	Self-efficacy	0.615	0.378	148.623	0.372	8.88	0.000
		Anxiety				-0.341	-7.86	0.000

Table 8. bootstrap Mediating effect analysis

Path	Effect	LLCI	ULCI	P	Percentage	result
Indirect effect	0.174	0.108	0.252	0.001	31.87%	Partially mediation
Direct effect	0.372	0.290	0.454	0.001	68.13%	

The findings show that learning anxiety mediated the correlation between self-efficacy and speaking competence. Bootstrapping was used to determine whether the mediating effect of learning anxiety was statistically significant. The results showed that the value of the mediated effect was 0.174 and the 95% confidence interval (CI) did not include 0, so the mediating effect of learning strategy leading to speaking competence through learning anxiety was statistically significant (95% CI [0.108, 0.252]). As a result, Hypothesis 5 was supported, demonstrating that higher levels of self-efficacy correlate with lower learning anxiety and higher speaking ability.

5. Discussion

This section discusses each hypothesis about the results. The first hypothesis is about the relationship between learning strategy and speaking ability. The results ($\beta = -0.237$, $p < .05$) showed that a language learner's ability to complete the goal-setting process improves with their learning strategy. More proficient language learners use a greater variety and often a greater number of learning strategies (Bruen, 2001; Chamot & El-Dinary, 1999; Green & Oxford, 1995). Differences have been reported between higher and lower proficient language learners in terms of the quantity and variety of strategies utilised, how the strategies are applied to the task, and the appropriateness of the strategies. Students with strong speaking abilities appear to be more conscious of their language requirements. As a result, they frequently employed strategies that would enable them to become fluent in the target language through repetition, logic, and analysis. The study's findings align with those of Gharbavi and Mousavi (2012) and Pei Shi (2012), who found that learners use more strategies as their speaking skill level increases.

Hypothesis 2 explores the relationship between self-efficacy and speaking competence with the results ($\beta = 0.276$, $p < .05$). This result supports the numerous researchers' assertions about the significant correlation between students' self-efficacy beliefs and their actual performance and accomplishments (Bandura, 1997; Pajares, 1997; Bassi et al., 2007), this investigation coincided with the findings of the prior study (Asakereh & Dehghannezhad, 2015), which indicate a positive correlation between students' self-efficacy in speaking ability and their speaking achievement with speaking classes. Individuals with high self-efficacy are more likely to achieve success in learning a second language (Torres & Alieto, 2019). The learners with higher self-efficacy can promote their speaking ability. Understanding the development of self-efficacy is crucial, considering its significant impact on learning processes and outcomes (Zhang & Ardasheva, 2019).

Hypothesis 3 studied the relationship between learning anxiety and speaking competence with the results ($\beta = 0.263$, $p < .05$). This result supports Horwitz's hypothesis of foreign language anxiety, which highlights the frequent correlation between anxiety and language acquisition. Scholars like MacIntyre and Gardner (1991) and Krashen (1982) have mentioned theories of language anxiety, which be supported by the language anxiety may hinder the process of language learning. Anxiety is indeed one of the challenges commonly encountered by English as a Foreign Language (EFL) students, particularly in regard to speaking skills (Oflaz, 2019). Language anxiety was found to be correlated with students' performance, which is in line with previous findings utilising western languages like French, German, and Spanish (Horwitz & Young, 1991; McCoy, 1979; Price, 1991). It is imperative for teachers to establish a conducive, supportive, and encouraging learning environment for students that minimizes anxiety.

As predicted, hypothesis 4 indicates that the indirect influence of learning strategy on speaking competence through learning anxiety is significantly negative. Learning anxiety acts as a partial and independent mediator in the relationship between learning strategy and speaking competence. This negative correlation also suggests that Chinese college students studying English as a foreign language, who employ effective learning strategies, are likely to experience lower levels of learning anxiety and consequently improve their speaking competence. In essence, the association between learning strategy and speaking competence occurs through the intermediary factor of learning anxiety. This outcome underscores the crucial role of learning anxiety in bridging the connection between learning strategy and speaking competence. This finding is in line with (Chou, 2018; Chien, Hwang & Jong, 2020; Maican & Cocoradă, 2021; Mandasari & Oktaviani, 2018), which revealed that learners use strategies can reduce foreign language anxiety.

Hypothesis 5 verified the mediating role of anxiety. Piechurska Kuciel (2013) defines self-efficacy as a person's ideas of their abilities, which impact the efforts they make to achieve desired outcomes, self-efficacy is useful for exerting control over anxiety experiences. Self-efficacy and foreign language learning anxiety were negatively associated, with stronger self-efficacy resulting in reduced FLLA. It implies that building language learners' self-efficacy is crucial to their ability to attain a low FLLA level, which is necessary for successfully learning a foreign language. Additionally, there was a positive and negative correlation between the participants' speaking performance and FLLA and self-efficacy. In other words, language learners who possess high levels of self-efficacy but low FLLA levels may nevertheless be able to do well when speaking (Astuti, Hermagustiana & Sucahyo, 2021). Thus, the conclusion is that English language anxiety played an important role and as such is significant in mediating the effect of English language proficiency in college students in Heilongjiang province, in China. By lowering the negative attitude and providing an additional source of positive emotions, the participants' self-efficacy can reduce the initial impact of either motivation or anxiety. This helps them attain higher language proficiency than students who lack self-efficacy (Li, 2022; Zabihi et al., 2019; Sabti et al., 2019).

This research provides empirical evidence of the critical role that ELL college students' learning strategy, self-efficacy, and learning anxiety play an important role in their English speaking processes, as well as additional support for the mediation role of learning anxiety. These findings support statements that students'

self-efficacy is important in effectively supporting them in increasing their English ability (Kosimov, 2021), and strategy instruction was beneficial in reducing EFL students' speaking anxiety (El-Sakka, 2016; Aini, Amin, & Saputra, 2022).

6. Conclusions

This study presents the findings related to the five hypotheses developed for this investigation. The intricate correlations between the observable and latent variables were measured using multiple regression, Process 4, and SPSS as data analysis techniques. The results empirically verify the applicability of the proposed model and the predictive role of the variables in building speaking competence. Notable direct and indirect effects of the predictive factors were identified. Specifically, the study found that the learning anxiety of Chinese college EFL students had a negative and partially mediating effect.

7. Limitations and Implications

The results of the present study hold important implications for both learners and educators. Instructors should be conscious of the most powerful learning anxiety variables that contribute to L2 self-efficacy and learning strategies for EFL speaking. To inspire their pupils, teachers might create exciting as well as challenging assignments. In order to filter out instances of failure and a lack of motivation, teachers are also advised to take into account their students' attitudes, feelings, and values about EFL learning (Ghanizadeh & Royaei, 2015). According to the findings, educators should be trained to use innovative methods for reducing language-speaking anxiety in the classroom. Considering the previously mentioned result, the study also recommends that instruction be more learner-centred and that student collaboration be maintained, both of which may help students feel less stressed. The study's constraints, akin to those found in similar research endeavors, are evident. Its scope was confined to Chinese college EFL students in Heilongjiang province, potentially constraining the applicability of its results. Future investigations would benefit from including participants from various academic disciplines and class standings to thoroughly examine effective learning strategies and support mechanisms for EFL learners.

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