



A study on the influence of foreign language anxiety on English majors in Chinese universities

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ABSTRACT

Introduction. Foreign language learning anxiety has been extensively studied internationally, but due to the differences in cultural backgrounds, educational systems and learning environments, the characteristics of Chinese college students' foreign language learning anxiety and its causes are still worthy of in-depth research. The root causes of foreign language learning anxiety among Chinese college students are complex, multifaceted, and deeply rooted in educational and cultural backgrounds. By gaining a deeper understanding of foreign language learning anxiety among English major college students, this study can provide educators with a basis for improving teaching methods, and can also help students reduce foreign language anxiety in the right way, thus improving the efficiency and quality of foreign language learning.

Study participants and methods. Taking students from three language universities in China as the research subjects, this study collected 970 questionnaires by means of questionnaire surveys, and a total of 62 invalid questionnaires were excluded, thus ultimately obtaining 908 valid questionnaires that met the requirements of the study, and the validity rate of the questionnaires was 93.61%.

Results. There were significant differences in foreign language anxiety ($t=5.173^{***}$, $F=8.050^{***}$), metacognitive ability ($t=6.488^{***}$, $F=8.802^{***}$), and perceptual social support ($t=3.888^{***}$, $F=9.173^{***}$) among Chinese college students of different genders and grades. There was a significant negative effect of perceptual social support on foreign language anxiety among Chinese university students ($\beta=-.549$, $p<.001$). There was a significant positive effect of perceptual social support on metacognitive ability ($\beta=-.545$, $p<.001$) among Chinese university students. The standardised regression coefficient of perceptual social support changed from ($\beta=-.549$, $p<.001$) to ($\beta=-.305$, $p<.001$), suggesting that metacognitive ability partially mediated the relationship between perceptual social support and foreign language anxiety.

Conclusion. The present study provides data-based evidence revealing the differential and significant relationships between different background variables on foreign language anxiety, metacognitive ability, and navigating social support, and reveals the mechanisms of foreign language anxiety formation, pointing to potential intervention pathways, i.e., the enhancement of the social support network and the enhancement of the learners' metacognitive regulatory abilities can effectively alleviate foreign language anxiety.

KEYWORDS

college students, foreign language anxiety, metacognitive ability, appreciation of social support, psychodynamic field theory

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INTRODUCTION

With the development and progress of pedagogy, educators have come to realise the important role that learners play in the language learning process, and UNESCO has demonstrated the importance of the principle of 'Learner-centredness', which has led to a greater focus on the learner.

At present, foreign language anxiety has become an important topic in the study of academic performance and mental health of Chinese English major college students. The causes of foreign language anxiety are complex and varied, involving both internal emotional factors, such as self-doubt and fear of failure, as well as the influence of external educational environments and management systems [1]. Foreign language anxiety specifically refers to the tension, worry and fear that students feel during the process of learning a foreign language [2].

Metacognition refers to an individual's awareness and regulation of his or her own cognitive processes, which simply means "thinking about what he or she is thinking" [3]. Metacognition has become a major area of research in cognitive and developmental psychology and is thought to affect human cognition in various ways [4]. Foreign language anxiety has a negative impact on cognition, which in turn affects performance and learning [5]. Metacognitive ability provides self-confidence and self-efficacy and has a reducing effect on an individual's foreign language anxiety [6]. Metacognitive skills, foreign language anxiety are important factors affecting students' mental health, and metacognitive skills have a significant positive predictive effect on mental health [7]. Developing students' metacognitive skills improves learning efficiency and reduces foreign language anxiety, thus promoting their mental health.

Appreciation of social support is a multidimensional concept that refers to the available social and psychological support that an individual perceives or receives from family, friends, or the community in which he or she lives [8]. Crucially, the effectiveness of appreciation of social support depends on the match between the source, type, timing and needs of the individual [9].

Foreign language anxiety is governed and influenced by many factors, and college students need to make a correct evaluation of their own state so that they can use the correct coping methods to solve the problem. Based on this, there is a greater need to understand the situation of foreign language anxiety of contemporary English majors, and to provide a diversified and positive learning environment for contemporary English majors. However, the reality is that college students lack knowledge about themselves, which leads to a more complex and serious state of foreign language anxiety. Therefore, the main purpose of this study is to explore the factors affecting foreign language anxiety, to provide educators with a basis for improving teaching methods through a deeper understanding of foreign language learning anxiety among English major college students, and to help students better understand and use positive ways to manage their anxiety, thus improving the efficiency and quality of foreign language learning.

LITERATURE REVIEW

1. Psychodynamic Field Theory

Lewin proposed the 'Psychological Field Theory' based on important concepts such as 'Life Space', 'Tension' system, etc. [10]. Lewin believed that individuals and their psychological environments are interdependent variables whose relationship can be represented by the function $B = f(P, E) = f(LS)$ [11]. Where B (Behavior) denotes an individual's internal behavior (mental behavior) and external behavior (external behavior); P (Person) denotes personal factors; E (Environment) denotes environmental factors, including all the environmental factors that have an impact on an individual's internal and external behaviors; f denotes a functional relationship, i.e., an individual's internal and external behaviors change with changes in the environment as perceived by the individual; LS (Life Space) denotes an individual's life space. Any behaviour produced by an individual (e.g. psychological behaviour) originates from a whole of interdependent and interacting things, including the individual and his/her surroundings. The process by which an individual's behaviour changes can be understood as a cognitive effect of the individual's perception of his or her surroundings.

This study is based on Lewin's psychological field theory, which suggests that the experience of anxiety in the process of learning a foreign language can start from the external environmental factors around the target research group, to explore the interaction between the internal and external environments of their learning life, and then to analyse the reasons why the target research group develops anxiety in learning a foreign language.

2. Foreign Language Anxiety

Xia et al. proposed that anxiety is an emotional response of an individual that mainly occurs when an individual is confronted with information that endangers him/her and significant others and displays an unpleasant emotional state [12]. Horwitz et al. were the first to introduce the concept of foreign language anxiety and studied it independently from anxiety, defining foreign language anxiety as a distinctive complex of self-perceptions, beliefs, emotions, and behaviours related to self-perception, beliefs, emotions, and behaviours that arise during the process of learning a foreign language and that are linked to classroom foreign language learning [13]. MacIntyre described language anxiety as a feeling of stress, tension, emotional reactions and worry associated with second/foreign language learning [14]. According to Horwitz et al. study, test anxiety, communicative anxiety and negative evaluation anxiety are the three main sources of anxiety [13]. According to Kanero et al. study, foreign language anxiety is caused by four factors which are discomfort, fear, embarrassment and worry [15].

The present study synthesises the research of Horwitz et al. and MacIntyre defined foreign language anxiety as the apprehension and fear of self-consciousness, beliefs, feelings, and behaviours that are evident in relation to classroom language learning and that are specific to the language learning process.

The multidimensional influence mechanism of foreign language anxiety reveals its complex causes and performance characteristics. Foreign language anxiety research covers both subjective and objective factors, emphasises the role of learners' affective regulation and cognitive ability in anxiety, and points out the moderating effect of instructional design and classroom environment on anxiety. Therefore, the study will deepen the connotation of foreign language anxiety, provide a theoretical basis for anxiety intervention in teaching practice, and help build a more inclusive and adaptive foreign language learning environment.

3. Metacognitive Ability

The popularity of metacognitive ability lies in updating the traditional understanding of the boundaries of different cognitive domains. The traditional conception of the division of an individual's cognitive activity into the domains of sensation, perception, memory, and speech emphasises the differentiation and specificity between the domains, and cuts off the wholeness and connectedness of an individual's cognitive activity [16].

In this paper, the definition of Tuononen et al. will be chosen as: metacognitive ability is the ability to know and perceive cognitive phenomena, the ability to perceive and regulate one's own cognitive states and processes [17].

Additionally, Beitz argues that education is very challenging because teachers need to teach students a full range of professional skills in complex situations over a period of time, and believes that metacognitive abilities can help advance students' cognitive pursuits and interests, thus facilitating teaching and learning [18]. August-Brady investigated the effects of an undergraduate metacognitive ability intervention and self-directed learning and found that undergraduate nursing students learned more quickly and independently using a 'concept mapping' metacognitive ability intervention [19].

It can be seen that metacognitive ability is crucial for college students, especially playing a significant role in mental health and foreign language learning. By enhancing self-awareness and reflective skills, college students are better able to manage emotions and stress and reduce academic anxiety, including anxiety in foreign language learning.

4. Appreciation of Social Support

According to Caplan, appreciation of social support refers to an individual's perception and experience of intimate connections in social interactions, which are both objective and subjectively perceived [20]. Demaray and Malecki defined appreciation of social support as an individual's perception of general support or specific supportive behaviours (available or performed) given by people in their social network that enhance functioning or may mitigate adverse consequences [21].

For this study, the definition of Drageset will be chosen, which is that appreciation social support is an intimate connection between people that exists objectively or where people can perceive that they are able to interact with others, that they are cared for, accepted, loved, have a sense of worth, and that help is given to them when they need it [22]. The findings of Peng et al. found a negative correlation between appreciation of social support and students' psychological problems [23]. Appreciation of social support helps students cope with this stress by providing emotional, informational, and practical help, with emotional support coming from family, friends, and peers, which can alleviate students' feelings of isolation and enhance their sense of self-worth [24].

Through a multifaceted support system, university students are able to achieve emotional and psychological balance in the face of difficulties in learning a foreign language, thereby improving learning outcomes and overall mental health.

5. Hypothesized Inferences

The results of Gerencheal's study showed that females were more anxious than males in English classes and significant gender differences were found in foreign language anxiety [25]. Liliana and Lavinia assessed students' metacognitive ability using the Primary Metacognitive Awareness Scale with 91 students from three schools in Romania, and their findings showed that there were differences in metacognitive ability between boys and girls [26]. Fang et al. explored whether the effects of appreciation of social support on depressive symptoms differed by gender, and their results indicated that the protective effects of appreciation of social support differed between males and females [27]. Aydin et al. found that students' levels of foreign language anxiety varied greatly by grade level [28]. Lower grade students were more likely than higher grade students to be anxious about tests, unpreparedness, and teacher corrections, and less anxious about oral activities, grammar learning, and negative evaluations. Bakkaloglu when metacognitive ability scores were examined according to grade level, fifth graders had higher metacognitive ability scores than the other groups [29]. However, there was no significant difference between the metacognitive ability scores of third and fourth graders. Yildirim and Tanrıverdi studied that subjective appreciation of social support among college students varies significantly by grade level [30]. Although university students have a high level of appreciation of social support, there is still room for improvement. Therefore, Hypothesis H1 of this study is proposed: there are significant differences in foreign language anxiety, metacognitive ability, and appreciation of social support among Chinese college students with different background variables (gender, grade level).

The findings of Kalsoom et al. in relation to appreciation of social support showed that father's support, teacher's support, best friend's support and other friends' support had an effect on learners' anxiety in second language learning [31]. The findings of Scardera et al. also confirmed the significant negative correlation between appreciation of social support and anxiety [32]. Therefore, this study proposes Hypothesis H2: There is a significant negative effect of appreciation of social support on foreign language anxiety among Chinese university students.

Saqezi and Yazdani through a questionnaire survey of secondary school students, the results of their study were a positive correlation between appreciation of social support and metacognition [33]. Pennequin et al.'s study indicated that subjective support, objective support and support utilisation were all significantly negatively correlated with metacognition index [34]. Therefore, this study proposes Hypothesis H3: There is a significant positive effect of appreciation of social support on metacognitive ability among Chinese university students.

Mohammadi et al. in exploring the relationship between appreciation of social support and test anxiety found that there was also a significant negative correlation between appreciation of social support and test anxiety [35]. Davis et al. used the Appreciation of Social Support Scale, Metacognitive Strategies Questionnaire to measure 355 college students and there was a significant

correlation between appreciation of social support and metacognition [36]. Movahed argued that metacognition can indirectly positively affect higher vocational students' English listening performance by reducing English learning anxiety [37]. Wang and MacIntyre's results showed that metacognitive ability partially mediates the effect of classroom communicative anxiety on English proficiency, and that metacognition can have an effect on English learning by reducing anxiety levels [38]. Therefore, this study proposes Hypothesis H4: Chinese college students' metacognitive ability mediates in the appreciation of social support and foreign language anxiety.

In summary, based on Lewin's psychological field theory, this study constructs a theoretical framework to explore the mechanisms influencing foreign language anxiety among Chinese college students by combining three core variables: foreign language anxiety, metacognitive ability, and perceived social support. Based on the literature analysis, this study puts forward four hypotheses to explore the variability of foreign language anxiety under different contextual variables, as well as the mechanisms by which perceived social support and metacognitive ability affect foreign language anxiety. The in-depth analyses in this study not only help to enrich the theoretical research on foreign language anxiety, but also provide a theoretical basis for practical teaching interventions, with a view to constructing a more inclusive and adaptive foreign language learning environment to help college students alleviate foreign language anxiety more effectively and improve their learning outcomes.

RESEARCH METHODOLOGY

The present study formulated a research framework to explore the impact of foreign language anxiety among college students majoring in English in Chinese colleges and universities. The independent variable appreciation of social support, the dependent variable foreign language anxiety, and the mediator variable metacognitive ability. Two background variables, gender and grade level, were also included. The quantitative research framework is shown in Figure 1.

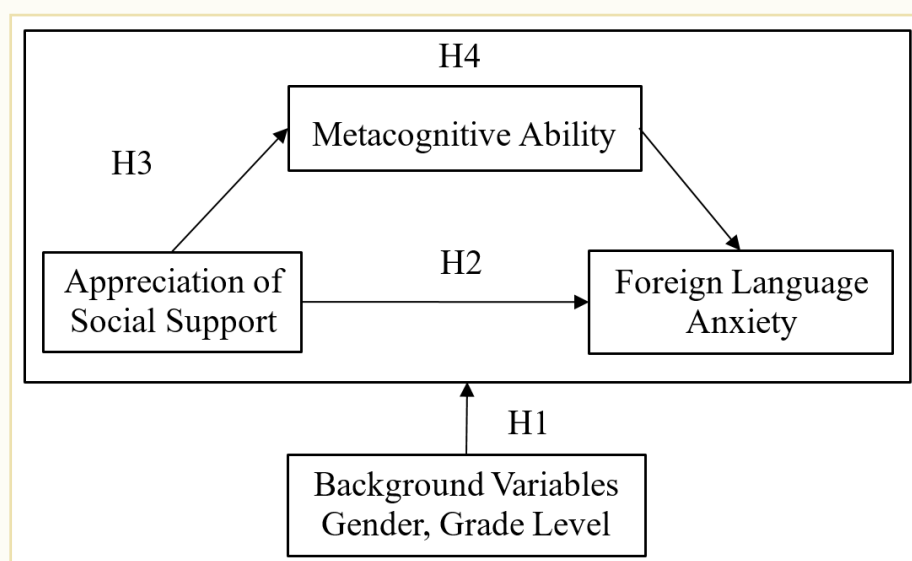


Figure 1 Research Framework Diagram

1. Research Subjects

In this study, in order to explore the mechanism of the influence of foreign language anxiety among college students majoring in English in Chinese universities, a questionnaire was used and students from three language universities in China were selected as the subjects of the study. The study was divided into two stages: pre-test and formal measurement. In terms of the number of pretest subjects, the number of samples taken was based on the Coping Styles Scale of the scale, taking three to five times the number of its questions [39]. A total of 30 questions, take five times for 150, considering that there will be invalid questionnaires, for this reason the

pre-test stage is expected to distribute 230 questionnaires to test the questionnaire reliability and validity. The scale as a whole totalled 114 questions, five times as many as 570, taking into account that there will be invalid questionnaires, so the formal stage is expected to distribute 950 questionnaires official questionnaires.

2. Research Method

This study uses questionnaires to collect data through convenience sampling. Questionnaires can be used to collect data on a large scale, they can be distributed to multiple respondents at the same time thus obtaining a wide range of information, they can be completed in a relatively short period of time, online surveys in particular provide a convenient way for respondents to participate in the study by answering the questions in their own time and place [40]. Additionally through convenience sampling, the researcher can quickly begin data collection without having to spend a great deal of time developing and implementing a complex sampling plan. Convenience sampling can be done on an as-needed basis and the researcher can select respondents according to the situation and resources [41].

3. Research Instruments

The scale instruments that will be used in this study are the Foreign Language Anxiety Scale, the Metacognitive Ability Scale, and the Appreciation of Social Support Scale.

The Foreign Language Anxiety Scale was developed using Du adapted from Horwitz et al. to develop the Foreign Language Classroom Anxiety Scale (FLCAS), which is divided into three dimensions containing three dimensions of communication anxiety, academic anxiety, and classroom anxiety, with a total of 21 questions [42; 43]. Communication anxiety (9 questions), academic anxiety (7 questions), and classroom anxiety (5 questions). Questions 8, 11, 21 in communication anxiety and question 4 in academic anxiety were reversed. A 5-point Likert Scale was used. In the 200 samples analysed in this pretest, the overall reliability coefficient of the scale was .926, and the reliability coefficients of the three dimensions of communication anxiety, academic anxiety, and classroom anxiety were .929, .901, and .887, respectively, which were all greater than .700, indicating that the scale has good reliability. A total of three factors were extracted from the 21 questions of the Foreign Language Anxiety Scale, and the variance explained by the three factors totalled 65.042% greater than 40%, indicating that the content of the questions explains foreign language anxiety well, and therefore the scale has good validity.

In this paper, we will select the metacognitive ability scale developed by scholar Zhang, which includes metacognitive planning (7 questions), metacognitive monitoring (6 questions), metacognitive regulation (6 questions), and metacognitive evaluation (5 questions)[44]. The scale is measured on a 5-point Likert Scale with positive scoring. The overall reliability coefficient of the scale for the 200 samples analysed in this pretest was .928, and the reliability coefficients for the four dimensions of metacognitive planning, metacognitive monitoring, metacognitive regulation, and metacognitive appraisal were .899, .912, .907, and .901, respectively, which were all greater than .700 (Nunnally, 1978), suggesting that the scale has a good level of reliability. A total of 4 factors were extracted from the 24 questions of the metacognitive ability scale, and the total variance explained of the 4 factors was 68.039% greater than 40%, which indicates that the content of the questions explains the metacognitive ability well, which indicates that the content of the questions explains the metacognitive ability well, and therefore, the scale has good validity.

The Appreciation of Social Support Scale was selected from the Appreciation of Social Support Multidimensional Scale developed by Zhang et al. [45]. The scale contains family support (9 questions), peer support (9 questions), and teacher support (9 questions), totalling 3 dimensions. The scale was measured on a 5-point Likert Scale. In the 200 samples analysed for this pretest, the overall reliability coefficient of the scale was .941, and the reliability coefficients of the three dimensions of family support, peer support, and teacher support were .935, .926, and .933, respectively, which were all greater than .700, indicating that the scale has good reliability. A total of three factors were extracted from the 27 questions of the appreciation of social support scale, and the total variance explained by the three factors was 65.060% greater than 40%, indicating that the content of the questions explains the appreciation of social support well, and therefore the scale has good validity.

STUDY RESULTS

1. Descriptive Statistical Analysis

A total of 970 questionnaires were actually collected for this study to ensure the breadth and representativeness of the data. A total of 62 invalid questionnaires were excluded, thus ultimately obtaining 908 valid questionnaires that met the requirements of the study, and the validity rate of the questionnaires was 93.61%. The basic background information of Chinese college students in this study was set to include gender and grade level. The research variables of this questionnaire included foreign language anxiety, metacognitive ability, and appreciation of social support.

Among the valid samples, the gender distribution was 394 male students, accounting for 43.392 per cent, and 514 female students, accounting for 56.608 per cent, which is a relatively even gender distribution. In terms of grade distribution, there were 164 freshmen, accounting for 18.061 per cent; 356 sophomores, accounting for 39.2070 per cent; 324 juniors, accounting for 35.683 per cent; and 64 seniors, accounting for 7.049 per cent. Due to the fact that the number of senior students involved in internship situations, the number of students in school is small, resulting in the inability to collect a relatively even sample.

2. Analysis of Differences

In order to find out whether there are significant differences in different demographic variables in foreign language anxiety, metacognitive ability, and appreciation of social support among college students majoring in English in Chinese universities and colleges, independent samples t-test and ANOVA one-way variance test were conducted for analysis of variance with gender and grade as the factors, respectively.

Table 1

Table of results of analysing gender differences among Chinese university students

Test Variable	Male (n=394)		Female (n=514)		t	p	Comparison of Differences
	M	SD	M	SD			
Foreign Language Anxiety	2.980	0.403	3.605	0.813	5.173	.001	F>M
Metacognitive Ability	2.872	0.363	3.689	0.756	6.488	.008	F>M
Appreciation of Social Support	2.989	0.412	3.634	0.790	3.388	.019	F>M

The foreign language anxiety of English majors in Chinese colleges and universities reached the significance level in different gender differences ($t=5.173$, $p<.050$), indicating that there is a significant difference between genders in foreign language anxiety, and the foreign language anxiety level of female students is significantly higher than that of male students. The metacognitive ability of college students majoring in English in Chinese colleges and universities reached a significant level ($t=6.488$, $p<.050$), indicating that there is a significant difference between genders in terms of metacognitive ability, and the level of metacognitive ability of female students is significantly higher than that of male students. Appreciation of social support of English majors in Chinese colleges and universities has reached a significant level ($t=3.888$, $p<.050$), indicating that there is a significant difference between genders in terms of appreciation of social support, and the level of female students is significantly higher than that of male students.

Foreign language anxiety of English major college students in Chinese colleges and universities reached the significance level ($F=8.050$, $p<.050$) on the difference between different grades, indicating that there is a significant difference between grades on foreign language anxiety, and thus post hoc comparisons are needed. Because of the homogeneity of the sample variances, Scheffe's method was used for post hoc comparisons, and the results showed that $4>2$; $4>1$.

The metacognitive ability of Chinese college students majoring in English reached the significance level ($F=8.802$, $p<.050$) on the difference between different grades, indicating that there is a significant difference between grades on metacognitive ability, and therefore post hoc comparisons are needed. Because of the homogeneity of the sample variances, Scheffe's method was used for post hoc comparisons, and the results showed that $4>3$; $4>1$.

Chinese college English majors' appreciation of social support reached the significance level ($F=9.173$, $p<.050$) in terms of differences across grades, indicating that there are significant differences in appreciation of social support by grade, thus post hoc comparisons are needed. Since the sample variances were homogeneous, post hoc comparisons were made using Scheffe's method, which showed that $4>3$; $4>2$; and $4>1$.

Table 2

Table of results of analyses of grade differences among Chinese university students

Test Variable	1 (n=164)	2 (n=356)	3 (n=324)	4 (n=64)	F	Scheffe's
	M (SD)	M (SD)	M (SD)	M (SD)		
Foreign Language Anxiety	2.875 (0.381)	3.132 (0.634)	3.664 (0.720)	3.952 (0.867)	8.050***	4>2; 4>1
Metacognitive Ability	2.837 (0.316)	3.150 (0.557)	3.668 (0.782)	3.944 (0.960)	8.802**	4>3; 4>1
Appreciation of Social Support	2.935 (0.389)	3.114 (0.621)	3.692 (0.703)	4.056 (0.803)	9.173***	4>3; 4>2; 4>1
Note 1: ** $p<.010$, *** $p<.001$;						
Note 2: Group 1 = Freshman; Group 2 = Sophomore; Group 3 = Junior; Group 4 = Senior.						

3. Correlation Analysis

In this study, Pearson correlation analysis was used to test the correlation between the dimensions of the three variables, and foreign language anxiety was significantly negatively correlated with metacognitive ability ($r= -.627$, $p<.001$) and appreciation of social support ($r= -.572$, $p<.001$). Metacognitive ability was significantly and positively correlated with appreciation of social support ($r= .630$, $p<.001$). The correlations between foreign language anxiety, metacognitive ability, and appreciation of social support for English majors in Chinese colleges and universities all reached statistical significance ($p<.001$), and the correlation coefficients were lower than .700, indicating that there was no problem of covariance.

Table 3

Correlation Analysis Table

Variable	Foreign Language Anxiety	Metacognitive Ability	Appreciation of Social Support
Foreign Language Anxiety	1		
Metacognitive Ability	-.627***	1	
Appreciation of Social Support	-.572***	.630***	1

4. Regression Analysis

In Model I, the relationship between appreciation of social support and foreign language anxiety was analysed by regression, controlling for background variables, and the results of the analysis

revealed an R^2 of .514, indicating that appreciation of social support explained 51.4% of the variance in foreign language anxiety. The standardised regression coefficient β was -.549 and reached a significant level ($p < .001$), indicating that appreciation of social support has a negative and significant effect on foreign language anxiety, i.e. the better the appreciation of social support, the lower the foreign language anxiety.

Controlling for background variables, the relationship between the effect of appreciation of social support on metacognitive ability was analysed by regression in Model II, and the results of the analysis revealed that the R^2 was .615, indicating that appreciation of social support explained 61.5% of the variance in metacognitive ability. The standardised regression coefficient β was .545 and reached a significant level ($p < .001$), indicating that appreciation social support has a positive and significant effect on metacognitive ability, i.e. the better the appreciation social support, the higher the metacognitive ability.

Controlling for background variables, in Model III, the relationship between metacognitive ability on foreign language anxiety was analysed by regression, and the results of the analysis revealed that the R^2 was .545, indicating that metacognitive ability explained 54.5% of the variance in foreign language anxiety. The standardised regression coefficient β was -.639 and reached a significant level ($p < .001$), indicating that metacognitive ability has a negative and significant effect on foreign language anxiety, i.e. the higher the metacognitive ability, the lower the foreign language anxiety.

Controlling for background variables, in Model IV, both appreciation of social support and metacognitive ability were added to the regression model to test the mediating effect of metacognitive ability in appreciation of social support and foreign language anxiety in a hierarchical regression. The results of the analyses revealed an R^2 of .591, indicating that appreciation of social support and metacognitive ability jointly explained 59.1% of the variance in foreign language anxiety, with standardised regression coefficients β of appreciation of social support ($\beta = -.305$) and metacognitive ability ($\beta = -.448$), which were all at the level of significance ($p < .001$). Comparing Model 1 with Model 4, the standardised regression coefficient of appreciation of social support changed from ($\beta = -.549$, $p < .001$) to ($\beta = -.305$, $p < .001$) suggesting that metacognitive ability partially mediated the relationship between appreciation of social support and foreign language anxiety.

Table 4

Table of Regression Analysis Results

	Model I		Model II		Model III		Model IV	
Variable	Foreign Language Anxiety		Metacognitive Ability		Foreign Language Anxiety		Foreign Language Anxiety	
	β	t	β	t	β	t	β	t
Control Variable								
Male	.138***	5.303	.276***	11.942	.037	1.387	.014	0.550
1	.206***	4.817	.188***	4.954	.182***	4.421	.121**	3.056
2	.163**	3.312	.112**	2.546	.174***	3.723	.113**	2.494
3	.057	1.226	.049	1.195	.073	1.631	.035	0.816
Appreciation of Social Support	-.549***	-19.101	.545***	21.307			-.305***	-9.427
Metacognitive Ability					-.639***	-21.636	-.448***	-13.048
F	190.751***		288.325***		216.448***		217.162***	
R^2	.514		.615		.545		.591	
ΔR^2	.511		.613		.543		.588	

Note 1: * $p < .05$; *** $p < .001$

Note 2: Female students are used as the control group in gender and senior year in grade.

DISCUSSION OF THE RESULTS

The results of this study show that there are significant differences in foreign language anxiety, metacognitive ability, and appreciation of social support among Chinese college students with different background variables (gender and grade level).

Regarding gender, there is a significant difference in foreign language anxiety among Chinese college English majors of different genders, i.e., female students are significantly higher than male students, and this result is similar to Matsuda and Gobe's findings that females are more likely to be anxious in the classroom due to the fear of making mistakes [46]; there is a significant difference in metacognitive ability among Chinese college English majors of different genders, i.e., the metacognitive ability of female students is significantly higher than that of male students, and this result is similar to Zimmerman and Schunk's finding that female learners are more active and frequent in the use of metacognitive strategies than males [47]. However, the results of the present study differ from the findings of Veenman et al. which suggest that gender differences in metacognitive ability may not be significant or even present [48]; there was a significant difference in the appreciation of social support among Chinese college English majors by gender, i.e., female students' appreciation of social support was significantly higher than that of male students, which is similar to the findings of Piko and Balázs' study, i.e., female students were significantly higher than their male counterparts in the overall level of appreciation of social support, especially in the areas of family and peer support [49]. However, the results of this study differ from Teigen and Skjeie's view that the difference between male and female genders in perceived social support is not significant due to gender equality and a better social welfare system [50].

Regarding grade level, there is a significant difference in foreign language anxiety among Chinese college students majoring in English at different grades, i.e., the level of anxiety experienced by students in the process of foreign language learning rises significantly as the grade level rises, and this result is similar to the findings of Dewaele et al. that students experience stronger anxiety in the later stages of foreign language learning due to the high standard of self-language proficiency required [51]. However, the results of this study differ from Krashen's suggestion that anxiety levels decrease as language learners are exposed to more Comprehensible Input [52]; there was a significant difference in the metacognitive ability of Chinese college students majoring in English in different grades, i.e., students in the fourth year of college showed a significant advantage in metacognitive ability, and this result is similar to Pintrich's findings that learners' maturity in the metacognitive planning stage increases with the accumulation of learning experience [53]. However, the results of the present study differ from the view proposed by Zohar and David, which suggests that the development of metacognitive ability does not always increase linearly in relation to grade level, and that some students in the lower grades can improve their metacognitive ability rapidly after being trained in metacognitive strategies [54]; there was a significant difference in the appreciation of social support among Chinese college English majors of different grades, i.e., the higher the grade, the higher the level of appreciation of social support, which is similar to the findings of Friedlander et al. that senior college students are more likely to establish solid peer relationships and have more stable perceptions of teacher and family support than junior students [55]. However, the results of the present study differ from the view presented by Kauppinen et al. who suggested that the level of social support among university students does not differ significantly between grades [56].

In addition, the results of this study also indicated that there was a significant negative effect of appreciation of social support on foreign language anxiety among Chinese college students, and Chang's findings were in high agreement with the findings of the present study, which was conducted on Chinese college students majoring in English [57]; appreciation of social support has a significant positive effect on metacognitive ability, a result similar to Zimmerman and Schunk's findings that a favourable external supportive environment improves an individual's efficiency in planning, monitoring and regulating the learning process [47]; However, Zhang's findings differ from the present study in that he suggests that the impact of social support on metacognitive ability may be more limited in certain Western educational environments where learners place more emphasis on independence [58]; the result that metacognitive ability mediates the role of appreciation of social support and foreign language anxiety is similar to the findings of Cohen and Wills that good external support helps individuals to adopt more effective strategies in coping with stress, which reduces negative emotions [59].

In summary, the results of this study, which is based on psychodynamic field theory, confirm that appreciation of social support plays an important buffering role in the formation of foreign language anxiety and indirectly affects anxiety levels through the mediating role of metacognitive ability. This study deepens the understanding of foreign language anxiety and also expands the application of psychodynamic field theory from the traditional field of psychology to the fields of educational management and foreign language learning.

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