

# Why Does Academic Enjoyment Affect Foreign Language Proficiency? The Mediating Role of Elaboration Strategies

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**Abstract:** From the perspective of positive psychology, academic enjoyment, a positive achievement emotion, positively impacts school outcomes. However, studies have yet to explore the mediating mechanism between academic enjoyment and achievement. This research investigated the direct and indirect effects of academic enjoyment on foreign language (FL) proficiency. Specifically, this study endeavored to test the role of FL enjoyment on FL elaboration strategies and whether FL elaboration strategies, in turn, affects FL proficiency. Data were collected from 505 Chinese secondary school students aged 12 to 15 using convenience sampling. Structural equation modeling (SEM) and mediation analyses found that FL elaboration strategies partially mediated the relationship between FL enjoyment and FL proficiency. Implications, shortcomings, and directions for further studies are also discussed.

## INTRODUCTION

Academic enjoyment is a positive, activating, activity-related emotion that might frequently experience in the context of learning English as a foreign language (EFL) (Pekrun et al., 2023; Shao et al., 2020). Pekrun et al. (2002) identified the eight discrete emotions by conducting a set of qualitative and quantitative studies. Later, Pekrun et al. (2011) developed the achievement emotions questionnaire (AEQ) for measuring students' achievement emotions, which laid the foundation for exploring a variety of achievement emotions. As a negative achievement emotion, academic anxiety or anxiety disorder was extensively studied in foreign language education (MacIntyre & Gregersen, 2012). However, with the development of the positive psychology movement (Seligman & Csikszentmihalyi, 2000), especially the introduction of the positive psychology movement into the field of foreign language education, an increasing number of scholars paid attention to the influence of positive achievement emotions (e.g., academic enjoyment) on school outcomes, including FL engagement (Tsang & Dewaele, 2023), academic self-concept (Kang & Wu, 2022) and FL proficiency (An et al.,

2021). However, studies have yet to explore the mediating mechanism between FL enjoyment and FL proficiency. More specifically, though existing studies argued that academic enjoyment was conducive to improving students' FL proficiency, few studies have explored the possible mediating effect of learning strategies between enjoyment and FL proficiency. Also, the research on positive achievement emotions of Chinese secondary EFL learners is relatively limited. Thus, the present study was designed to explore the direct effect of academic enjoyment on FL proficiency or the indirect effect of mediated learning strategies among 505 Chinese students.

## LITERATURE REVIEW

### Foreign Language Enjoyment

Academic enjoyment refers to a positive emotional experience experienced by students in the learning process, which shows how much the students like a particular subject (e.g., English) (Boliver & Capsada-Munsech, 2021). Scholars documented that emotions are domain-specific (Goetz et al., 2006, 2007), suggesting that research on achievement emotions should focus on a specific discipline (e.g., English or Mathematics). In this study, we focused on FL enjoyment and defined it as secondary school students' liking for the subject of English. The control-value theory posits that control and value appraisals are proximal antecedents of achievement emotions (Pekrun, 2006). If an individual's control and value appraisals of a particular subject are high, he or she may experience more enjoyment in learning this subject.

The beneficial effects of FL enjoyment on school outcomes have been explored (Kang & Wu, 2022; Tsang & Dewaele, 2023; Wang, 2022). For example, in a study with Chinese college students, Wang (2022) found that FL enjoyment was positively correlated with academic engagement. In another study among Hong Kong primary school students, Tsang and Dewaele (2023) documented that FL enjoyment would generate a direct influence on FL proficiency or indirectly affect FL proficiency via learning engagement. Limited by the lack of research on FL enjoyment, few studies have explored the relationship between FL enjoyment and cognitive strategies (Kang & Wu, 2022). Rehearsal, elaboration, and organization are the three types of cognitive activities (Wolters, 1998, 2003). Little research has examined the mediating effect of elaboration strategies between FL enjoyment and FL proficiency. Moreover, Chinese students are greatly influenced by Confucian heritage culture, and research on FL enjoyment needs to pay attention to secondary school students under the influence of

this culture. Thus, the present study was designed to investigate the relationship between FL enjoyment, elaboration strategies, and FL proficiency among Chinese secondary EFL learners.

### **Foreign Language Elaboration Strategies**

Elaboration strategies are deep processing strategies that connect new learning contents with the existing knowledge in mind (Garavan & O'Brien, 2011). Learners could connect new learning materials with existing knowledge by adopting elaboration strategies so that the new learning materials may enter into long-term memory (Willoughby et al., 1999). In this study, we defined FL elaboration strategies as the degree to which FL learners connect new and old knowledge to master English knowledge.

The influencing factors and the effects of elaboration strategies have been identified in existing literature (Artino & Jones, 2012; Priawasana et al., 2020; Wood & Willoughby, 1993). For instance, Artino and Jones (2012) found that academic enjoyment positively affected elaboration strategies among American college students, showing that students' academic enjoyment might facilitate their use of elaboration strategies. In another study, Priawasana et al. (2020) documented that elaboration strategies positively predict academic achievement and critical thinking. These two empirical studies demonstrate that academic enjoyment, mediated through elaboration strategies, impacts academic achievement. However, whether this mediation model ("academic enjoyment" → "elaboration strategies" → "academic achievement") is valid needs to be verified. Especially, empirical research is needed to verify the validity of "FL enjoyment → elaboration strategies → FL proficiency" in EFL education.

### **Foreign Language Proficiency**

Academic achievement is critical to students at any stage, from primary school to college students (Rivkin & Schiman, 2015), which is one of the leading indicators of school outcomes. This study is concerned with EFL learners' FL proficiency and defines it as the ability of English to listen, speak, read, write, and translate. In China, English test papers aim to check students' learning from the five dimensions of listening, speaking, reading, writing, and translation, indicating that English test paper scores could represent learners' FL proficiency. Thus, we collected participants' English scores to present their FL proficiency in the study.

Given the importance of FL proficiency to school outcomes, researchers identified a number of predecessors of it, including elaboration strategies (Priawasana et al., 2020; Van Den Noort et al., 2006), achievement emotions (Camacho-Morles et al., 2021) and academic

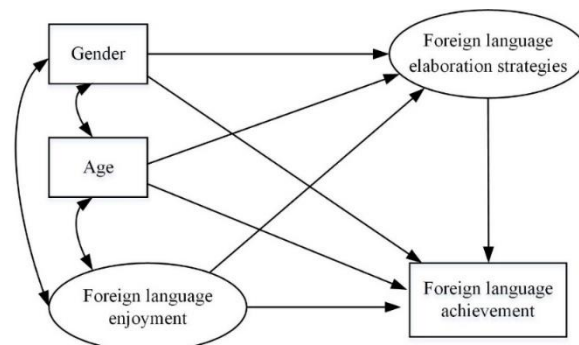
motivation and engagement (Wu, 2017). However, the factors that significantly affect academic achievement are not necessarily juxtaposed. Although achievement emotions, cognitive strategies (e.g., elaboration strategies), motivation, and engagement are all important antecedents of academic achievement, there are also possible causal relationships between these antecedent factors. Thus, further studies are required to investigate the possible linkage between these antecedent factors.

### **Joint and Mediated Effects of FL Enjoyment and Elaboration Strategies on FL Proficiency**

Existing studies have examined the correlation between FL enjoyment, elaboration strategies, and FL proficiency. However, research has yet to investigate the relationship among these three constructs. For example, Kang and Wu (2022) confirmed that FL enjoyment had a predictive effect on FL proficiency, and Artino and Jones (2012) documented the positive linkage between enjoyment and elaboration strategies. Furthermore, the correlations between elaboration strategies and academic achievement were also confirmed (Priawasana et al., 2020). Therefore, we hypothesized that FL enjoyment and elaboration strategies might have joint and mediated effects on FL proficiency. Accordingly, this research seeks to investigate the mediation model of “FL enjoyment → elaboration strategies → FL proficiency”.

### **The Present Study**

Based on the literature, the present study aimed to check the following three hypotheses:  
H1: FL enjoyment is positively correlated with FL proficiency.  
H2: FL enjoyment has a predictive effect on elaboration strategies.  
H3: When controlling for age and gender, elaboration strategies mediate the relationship between FL enjoyment and FL proficiency.



**Figure 1.** The hypothesized model

## **METHODS**

### **Participants and procedures**

Five hundred-five participants (46.7% female) recruited from a secondary school in Foshan City, Guangdong Province, China using the convenience sampling method, answered the questionnaires. All the 7<sup>th</sup> and 8<sup>th</sup> graders from this secondary school were invited to participate in the questionnaire survey. Participants were between 12 and 15 years old. Participants' average age was 13.66 ( $SD = .61$ ). Participants came from Grade 7 (209, accounting for 41.4%) and Grade 8 (296, accounting for 59.6%).

This research aimed to examine the associations between FL enjoyment, elaboration strategies, and FL proficiency among Chinese secondary EFL learners. Therefore, a quantitative design was adopted. Seventh and eighth graders in a secondary school in Foshan City, Guangdong Province, China, were recruited to answer the questionnaire. First, participants' written informed consent and their parents' or legal guardians' verbal consent were received before conducting the questionnaire survey. Second, with the help of collaborators, participants responded to the questionnaire items during English class time. Participants have complete freedom and can stop the questionnaire survey according to their free will. The questionnaire survey took about 20 minutes. Third, the answered questionnaires were checked by the English teachers to make sure there were no missing data.

### **Instruments**

#### ***Foreign Language Enjoyment Scale***

The emotions experienced in the English classroom context are critical to students' FL proficiency. We developed the class-related FL enjoyment scale based on the items adapted from the Achievement Emotions Questionnaire (AEQ) (Pekrun et al., 2011). There are 4 items in the FL enjoyment scale (e.g., "I look forward to my English class"). Participants' responses were rated on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The higher the score, the higher level of participants' enjoyment in learning English. This scale demonstrated good psychometrical properties in previous studies (Kang & Wu, 2022). The validity of the FL enjoyment scale was good (Cronbach's  $\alpha = .87$ ) (see Table 1).

#### ***Foreign Language Elaboration Strategies Scale***

The FL elaboration strategies were measured by five items adapted from the Goal Orientation and Learning Strategies Survey (GOALS-S) (Dowson & McInerney, 2004). Given

that the construct of elaboration strategies is domain-specific (Geurten et al., 2018), we adapted it to satisfy the EFL context (e.g., “I try to understand how I learn English is related to other things I know”). The FL elaboration strategies demonstrated good validity, with Cronbach’s  $\alpha = .86$  (other descriptive results of this scale, see Table 1). The SEM analysis treated FL elaboration strategies as a latent variable.

### ***Levels of Foreign Language Proficiency***

Participants’ FL proficiency was presented by their English scores on the last final examination in December 2022. The English examination paper consists of five question types, and the total score is 100 points: listening comprehension (20 points), vocabulary and grammar (25 points), clozing (15 points), reading comprehension (20 points), and writing (20 points). Students were required to complete the test paper in two hours. The Municipal Education Bureau developed the test paper to guarantee the reliability and validity of the test paper. Higher English scores indicated higher FL proficiency.

### ***Covariates***

Existing studies have shown gender and age differences in achievement emotions (Dewaele et al., 2016; Gentry et al., 2002), cognitive strategies (Chen, 2014; Viriya & Sapsirin, 2014), and academic achievement (Chyung, 2007). Thus, for the purpose of excluding the possible effects of gender and age, these variables were controlled as covariates.

### **Data analysis**

The data of this research were self-reported, and the potential problem of common method variance was first assessed. Second, data were analyzed to examine the three hypotheses. Specifically, descriptive statistics of the studied variables were collected, including the skewness, kurtosis and factor loadings. Confirmatory factor analysis (CFA) was conducted to assess the properties of the measurement model. A structural equation model (SEM) was applied to investigate the relationship between the studied variables. Furthermore, a bootstrap procedure with 5000 re-samples and 95% bias-corrected confidence intervals (BC 95% CIs) was used to calculate the mediation effects of FL elaboration strategies.

## FINDINGS

### Common Method Bias

Harman's single-factor test was used to evaluate the issue of common method bias (Podsakoff et al., 2003). The single-factor CFA showed that the model fit was poor when all items of all latent variables (i.e., FL enjoyment and elaboration strategies) were applied:  $\chi^2(35) = 519.968, p < .001, CFI = .812, TLI = .759, RMSEA = .166, 90\% CI [.153, .178], SRMR = .078$ . Since zero was not contained in the CIs, indicating common method bias would not cause severe problems with the data analysis.

### Descriptive Statistics

Descriptive statistics of the studied variables are presented in Table 1. According to the criteria proposed by Roever & Phakiti (2017), the variable has satisfactory normality for the maximum likelihood (ML) estimation if  $|\text{skewness}|$  and  $|\text{kurtosis}|$  are smaller than two. Furthermore, the average scores of the studied variables were also reported. It was found that Chinese secondary EFL learners' enjoyment in learning English was high ( $Mean = 3.85, SD = .71$ ), while their application of elaboration strategies was moderate ( $Mean = 2.93, SD = .52$ ).

**Table 1.** Descriptive statistics for studied latent variables

	Mean	SD	Skewness	Kurtosis	Cronbach's $\alpha$	Factor loadings
FL enjoyment	3.85	.71	-.35	.20	.87	.64-.86
FL elaboration strategy	2.93	.52	-.21	1.03	.86	.62-.79
FL achievement	.00	.99	-.87	-.09	-	-

### Measurement Models and Latent Bivariate Correlations

Mplus 8.3 (Muthén & Muthén, 2013) was used for data analysis. A series of criteria proposed by Chen (2007) was adopted to evaluate the model fit, including the comparative fit index ( $CFI \geq .95$ ), standardized root mean square residual ( $SRMR \leq .08$ ), Tucker-Lewis index ( $TLI \geq .95$ ), and root mean square error of approximation ( $RMSEA \leq .06$ ). First, measure model with no covariates (i.e., gender and age) and FL achievement was tested. Based on these criteria, it was found that the measurement model fit the data well:  $\chi^2(34) = 99.833, p < .001, CFI = .975, TLI = .966, RMSEA = .062, 90\% CI [.048, .076], SRMR = .039$ .



**Table 2.** Results of correlations matrix for the variables

	1	2	3	4	5
1 FL enjoyment	-				
2 FL elaboration strategies	.67***	-			
3 FL proficiency	.37***	.39***	-		
4 Gender	.00	.06	.11*	-	
5 Age	.10*	.03	-.10*	-.07	-

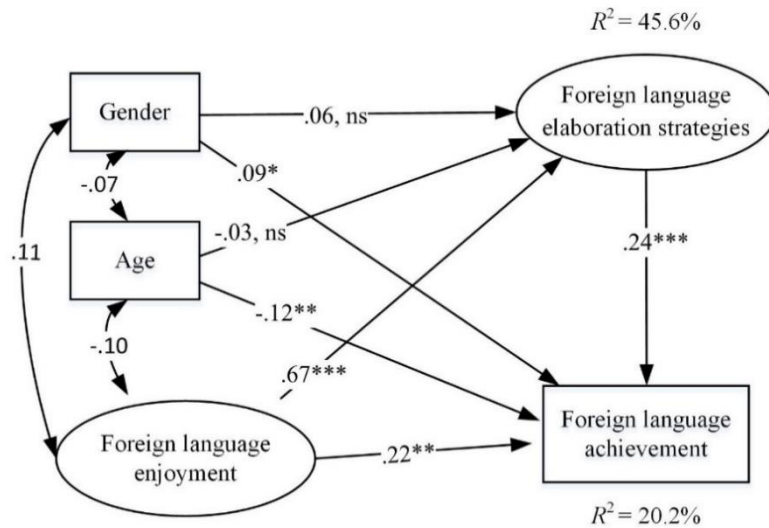
\*\* $p < .05$ ; \*\*\* $p < .001$ .

Secondly, controlled variables and FL achievement were added into the measurement model as manifest variables, and the model fit the data well:  $\chi^2(58) = 132.232, p < .001$ , CFI = .972, TLI = .963, RMSEA = .050, 90% CI [.039, .062], SRMR = .035. Table 2 demonstrates the bivariate correlations between the studied variables. It was found that FL enjoyment was positively correlated with FL elaboration strategies and FL achievement at  $p < .001$ . Also, the positive correlation between FL elaboration strategies and FL proficiency was confirmed. Moreover, the significant correlation between FL achievement and age and gender was also verified.

### Structural Equation Modelling

SEM was conducted to evaluate the proposed model (“FL enjoyment  $\rightarrow$  elaboration strategies  $\rightarrow$  FL proficiency”) presented in Figure 1 (gender and age as covariates). The proposed model fit the data well for  $\chi^2(60) = 136.783, p < .001$ , CFI = .972, TLI = .963, RMSEA = .050, 90% CI [.039, .062], SRMR = .042. Figure 2 presents the proposed model with standardized regression weight. Particularly, as demonstrated in Figure 2, we had four striking findings. First, FL enjoyment had significant predictive effects on FL elaboration strategies ( $\beta = .67, SE = .03, p < .001$ ) and proficiency ( $\beta = .22, SE = .07, p < .01$ ). Second, FL elaboration strategies had a significant predictive effect on FL proficiency ( $\beta = .24, SE = .07, p < .001$ ). Third, the predictive effects of gender (0 = male, 1 = female) ( $\beta = .09, SE = .04, p < .05$ ) and age ( $\beta = -.12, SE = .04, p < .01$ ) on FL proficiency were also confirmed, suggesting that female students’ FL proficiency was better than their male counterpart and the older the EFL learners were, the worse their FL proficiency was. Fourth, the proposed model explained significant proportions of variance in FL elaboration strategies (45.6%) and FL proficiency (20.2%).





**Figure 2.** SEM testing of the proposed model. All the correlations and path coefficients shown are standardized, and ns denotes insignificant coefficients.

\*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$ .

Moreover, the potential mediating effect of elaboration strategies was explored using the bootstrap method. BC 95% CIs was produced by the 5000 re-samples of the data. Efron (1988) documented that BC 95% of CIs with zero excluded means that the mediation effect is significant. The results of the mediation effect are shown in Table 3. First, the indirect effect in the path of “FL enjoyment → elaboration strategies → FL proficiency” was significant for zero was not included in the BC 95% CIs (.07, .25). That is, FL enjoyment could indirectly affect FL proficiency via the mediator of elaboration strategies. Second, the direct effect of FL enjoyment on FL proficiency was significant (BC 95% CIs [.09, .35]), indicating that elaboration strategies partially mediate the relationship between FL enjoyment and FL proficiency.

**Table 3.** Results of mediation analysis

Model path	Effect	SE	Bias-corrected CIs 95%	
			Lower	Upper
<b>Total effect</b>	.38	.05	.28	.47
<b>Indirect effect: Enjoyment → Elaboration strategies → Achievement</b>	.16	.05	.07	.25
<b>Direct effect</b>	.22	.07	.09	.35

## DISCUSSION

This study explored the association between FL enjoyment and FL proficiency in a Chinese EFL learning context. Specifically, the mediating effect of elaboration strategies between FL enjoyment and FL proficiency was examined. This research found that FL enjoyment affected FL proficiency directly and indirectly via elaboration strategies.

First, the findings revealed that FL enjoyment positively predicted FL proficiency, indicating that H<sub>1</sub> was supported. The finding that students' FL enjoyment positively influenced their FL proficiency is consistent with the results in prior literature (Kang & Wu, 2022; Zhang et al., 2020). On the one hand, the promotion effect of FL enjoyment on improving EFL learners' proficiency was confirmed, suggesting that improving EFL learners' enjoyment level is one effective way to enhance their FL proficiency. On the other hand, the control-value theory (Pekrun, 2006) posits the correlation between achievement emotions and academic achievement, arguing that positive emotions (e.g., enjoyment) have an enhancing effect on subsequent achievement. This research provides empirical evidence for the control-value theory.

Second, FL enjoyment had a positive predictive effect on elaboration strategies, suggesting that H<sub>2</sub> was supported. More specifically, positive FL enjoyment is conducive to EFL learners' flexible and creative application of learning strategies (e.g., elaboration strategies or metacognitive strategies), contrasting negative emotions that may cause learners to adopt rigid strategies (e.g., rehearsal strategies). This finding is consistent with the existing studies (An et al., 2021; Obergriesser & Stoeger, 2020). Also, this finding fits with the resource limitation theory (Kahneman, 1973). That is, the amount of cognitive resources is affected by arousal. When in a low arousal positive emotion (i.e., academic enjoyment), students' attention, memory, judgment, and reasoning abilities could be promoted. Thus, deep-level cognitive strategies (e.g., elaboration strategies) are more likely to be taken (King & Areepattamannil, 2014).

Third, after controlling for age and gender, it was found that elaboration strategies mediated the association between FL enjoyment and FL proficiency, in which H<sub>3</sub> was supported. Existing studies identified several mediators in the association between academic enjoyment and academic proficiency. An et al. (2021) confirmed that FL self-efficacy mediated between FL enjoyment and learning outcomes. In another study with primary school students, Tsang and Dewaele (2023) documented engagement-mediated achievement emotions (i.e.,

enjoyment, anxiety, and boredom) and FL proficiency. Self-efficacy and engagement aside, the present study identified elaboration strategies as mediators between FL enjoyment and FL proficiency. This contribution to the literature lies in an improved understanding of the mediating mechanisms between FL enjoyment and FL proficiency.

This research has theoretical and practical implications. First, this study provides empirical evidence for the control-value theory that FL enjoyment could positively affect FL proficiency. Second, the productive role of positive achievement emotions (i.e., FL enjoyment) in enhancing elaboration strategies was explored under the framework of the resource limitation theory, indicating the establishment of the resource limitation theory in the Chinese EFL education context. Third, FL enjoyment could directly or indirectly affect FL proficiency, indicating the importance of FL enjoyment to FL proficiency. Therefore, EFL educators are suggested to take steps (e.g., strengthening teacher-student interaction, setting achievement goals, and providing emotional and academic support) to increase the level of EFL learners' enjoyment (Lin et al., 2020; Tempelaar et al., 2012; Wu & Kang, 2023).

## **CONCLUSION**

The promotion of positive achievement emotions in the outcomes of foreign language education has been unanimously affirmed by scholars. However, the mediators identified by existing studies only played a partial mediating effect between FL enjoyment and FL proficiency, suggesting that the mediating mechanisms between the independent (i.e., FL enjoyment) and dependent (FL proficiency) variables have yet to be fully explored. The present study contributes to the literature by identifying that elaboration strategies mediate between FL enjoyment and FL proficiency. Various stakeholders in FFL education are suggested to value the pleasant emotional experience of EFL learners in the process of FL learning. For instance, cultivating a harmonious teacher-student relationship, improving social support, and enhancing the individual's psychological resilience are possible measures to improve EFL learners' enjoyment levels. Guiding by the control-value theory and the resource limitation theory, the present study confirmed that the higher the level of EFL learners' enjoyment, the more likely they are to adopt elaboration strategies, which in turn contributes to the enhancement of EFL learners' FL proficiency.

## LIMITATIONS AND STUDY FORWARD

The present study further revealed the mediating mechanism between FL enjoyment and FL proficiency, which helps understand the complex indirect relationship between FL enjoyment and FL proficiency. However, three limitations need to be addressed in future studies. First, this study adopted a cross-sectional design to explore the relationship among FL enjoyment, elaboration strategies, and FL proficiency. However, we could not draw a causal relationship between these three constructs. More specifically, some researchers (Pekrun et al., 2014; Putwain et al., 2022) confirmed that there is a reciprocal relationship between achievement emotions and academic achievement, suggesting that the relationship between FL enjoyment, elaboration strategies, and FL proficiency needs to be further explored adopting a longitudinal design. Second, elaboration strategies partially mediated between FL enjoyment and proficiency, indicating that the mediating mechanisms between these two constructs still needed to be fully explored. Future studies are suggested to take more mediators (e.g., engagement, self-efficacy) into consideration. Third, the participants in this study were all Han secondary school students and Chinese minority students were not explored. In addition to the Han nationality, there are 55 ethnic minorities in China (Yang, 2015). Therefore, future research is recommended to include Chinese minority students to test the applicability of the control-value theory and the resource limitation theory in a broader cultural field.

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