



ACADEMIC ENJOYMENT AND PROFICIENCY IN ENGLISH: THE MEDIATING ROLE OF ORGANIZATIONAL STRATEGIES BY SECONDARY SCHOOL STUDENTS IN CHINA

Meihong Jiangⁱ

School of Humanities and Education,
Foshan University,
Foshan City, P. R. of China

Abstract:

Previous studies have extensively explored the mediating mechanisms between academic enjoyment and achievement. However, few studies have examined the mediating effect of cognitive strategies between these two constructs, especially in teaching English as a foreign language (EFL). This research aimed to investigate whether foreign language organizational strategies (FLOS) mediate the association between foreign language enjoyment (FLE) and foreign language proficiency (FLP). Five hundred and twenty-four Chinese secondary EFL learners aged 11 to 15 participated in the questionnaire survey. Structural equation modelling (SEM) and mediation analysis results showed that FLE could affect FLP directly and indirectly through FLOS after controlling for gender and age. Also, it was found that FLOS partially mediated the association between FLE and FLP. This research deepened the understanding of the mediating mechanisms between FLE and FLP. Implications, deficiencies, and suggestions for future research are discussed.

Keywords: foreign language enjoyment, organizational strategies, foreign language proficiency, mediating mechanism

1. Introduction

With the deepening of the positive psychology movement in the field of education, more and more studies have begun to explore the impact of positive achievement emotions on school outcomes (Granado et al., 2017; Kang & Wu, 2022; Marques et al., 2017). Educational researchers no longer merely focused on the detrimental effects of negative achievement emotions (e.g., academic anxiety) on school outcomes but also began to pay attention to the favourable effects of positive achievement emotions (e.g., academic enjoyment). As a kind of positive achievement emotion, the predictive effects of academic enjoyment on the key indicators of educational outcomes and psychological well-being

ⁱ Correspondence: email mhjiang2000@126.com

have been verified in previous studies (Dewaele & Li, 2022; Gavala & Flett, 2005; Tsang & Dewaele, 2023; Wang, 2022). For instance, Dewaele and Li (2022) explored the relationship between FLE and FLP in a sample of 111 Chinese primary school students and found that FLE was positively correlated with FLP. Moreover, a growing number of studies were conducted to identify the mediating mechanisms between FLE and FLP (An et al., 2021; Kang & Wu, 2022). For instance, An et al. (2021) found that academic self-efficacy mediated the association between FLE and FLP. In another study with college students, Wang (2022) investigated the relationship between academic enjoyment, motivation and engagement and found that academic enjoyment and motivation were significantly correlated with academic engagement.

Correlations between achievement emotions and cognitive strategies (Prinz-weiß et al., 2022; Shen et al., 2023) and between cognitive strategies and academic achievement (Donker et al., 2014) were validated. Thus, cognitive strategies might have mediated the link between achievement emotions and academic achievement. However, few studies have examined the potential mediating effect of cognitive strategies in the relationship between FLE and FLP. Besides, prior studies on the relationship between academic enjoyment and achievement were mainly conducted in the field of science, technology, engineering, and mathematics (STEM) (Putwain et al., 2018; Shao et al., 2020). Given that achievement emotions are domain-specific (Goetz et al., 2006), exploring the mediating mechanisms between FLE and FLP in EFL education is necessary. To narrow the knowledge gap, the present study was designed to test the hypothetical path of FLE→organizational strategies→FLP in a sample of Chinese secondary EFL learners.

2. Literature Review

2.1 Foreign Language Enjoyment

Academic enjoyment refers to the sense of pleasure that students experience when learning a particular subject (e.g., English), which represents the degree to which students like this particular subject (Boliver & Capsada-Munsech, 2021). According to the three-dimensional taxonomy of achievement emotions (Pekrun, 2006), achievement emotions can be described from the three dimensions of valence (positive or negative), the focus of object (activity- or outcome-related), and activation (activating or deactivating). Thus, academic enjoyment can be viewed as a positive, activating, activity-related emotion (Pekrun et al., 2007). Given the domain-specificity of achievement emotions, this research explored foreign language enjoyment and defined it as the pleasure students experienced while learning English.

The antecedents and consequences of FLE have been studied in previous literature (Boliver & Capsada-Munsech, 2021; Kang & Wu, 2022). For example, in a comparative study with British primary school students, Boliver and Capsada-Munsech (2021) documented that ability grouping would negatively affect students' academic enjoyment. In another study with Chinese secondary school students, Kang and Wu (2022) found that FLE was positively correlated with FLP. In a study with German secondary school

students, Schukajlow et al. (2021) explored the relationship between enjoyment, anxiety, prior achievement and the use of drawing strategies and found that academic enjoyment was positively correlated with the use of drawing strategies. Furthermore, the predictive effect of cognitive strategies on academic achievement has been verified in existing studies (Donker et al., 2014). Bring together, we hypothesized that organizational strategies, as a type of cognitive strategy, might mediate the association between FLE and FLP.

2.2 Organizational Strategies

Organizational strategies refer to the classification, sorting and generalization of learning materials according to the relationship between learned knowledge and existing knowledge to rationalize the structure of one's knowledge (Mantere, 2014). That is, organizational strategies are an individual's response to input, and a student with a high level of organizational strategies prefers to handle what he or she learns in class. In learning English, adopting organizational strategies means that EFL learners are likely to integrate the internal connections between the new knowledge, and the old and new knowledge, which is conducive to the memory and retrieval of English knowledge.

Existing studies confirmed the beneficial effects of organizational strategies on the key indicators of school outcomes (Kang & Wu, 2022; Silva et al., 2022). The organizational resources were directed to students' academic engagement, which in turn, affected their satisfaction (Silva et al., 2022). Likewise, Kang and Wu (2022) documented that organizational strategies were positively correlated with students' academic achievement. However, to the best of our knowledge, few studies have explored the antecedents of organizational strategies in the educational context. In particular, the relationship between achievement emotions and organizational strategies remains to be explored.

2.3 The Relationship between FLE, Organizational Strategies, and FLP

The control-value theory (Pekrun, 2006) postulates that positive achievement emotions are positively correlated with academic achievement through the mediators of engagement, motivation, and learning strategies. Empirically, the positive association between cognitive strategies and academic achievement was also confirmed among Indonesian college students (Suyitno, 2017). In another study with primary school students, Obergriesser and Stoeger (2020) found that enjoyment correlated with the effective use of learning strategies. In like manner, correlational analyses found that FLE indirectly affected FLP through academic engagement (Tsang & Dewaele, 2023). To sum up, FLE could affect FLP directly or indirectly via academic engagement.

Existing research provides a theoretical and empirical basis for the mediation framework ("FLE→organizational strategies→FLP"). However, two deficiencies in the existing research that need to be further explored. First, the possible mediating effects of organizational strategies between FLE and FLP were not identified. Second, most existing research has been carried out in Western settings, and few have touched upon the

Chinese secondary school students influenced by Confucian heritage culture. To make up for these deficiencies, this study was designed to test the mediation model of FLE→organizational strategies→FLP in a sample of Chinese secondary school students.

2.4 Covariates

Age differences in academic achievement were found in previous studies (e.g., Grissom, 2004), which means that age might make a difference in academic achievement. Similarly, researchers explored the relationship between gender and academic achievement and found gender differences (e.g., Guez et al., 2020; Matthews et al., 2009). Thus, gender and age should be controlled when exploring the relationship between FLE, organizational strategies, and FLP to disentangle the possible influence of these two variables.

2.5 The Present Study

Based on the literature review, the present study aimed to verify the following three hypotheses.

H₁: FLE positively correlates with FLP in a Chinese secondary EFL learners' sample.

H₂: FLE is positively correlated with Chinese secondary EFL learners' FLP.

H₃: Organizational strategies mediate the association between FLE and FLP after controlling for age and gender.

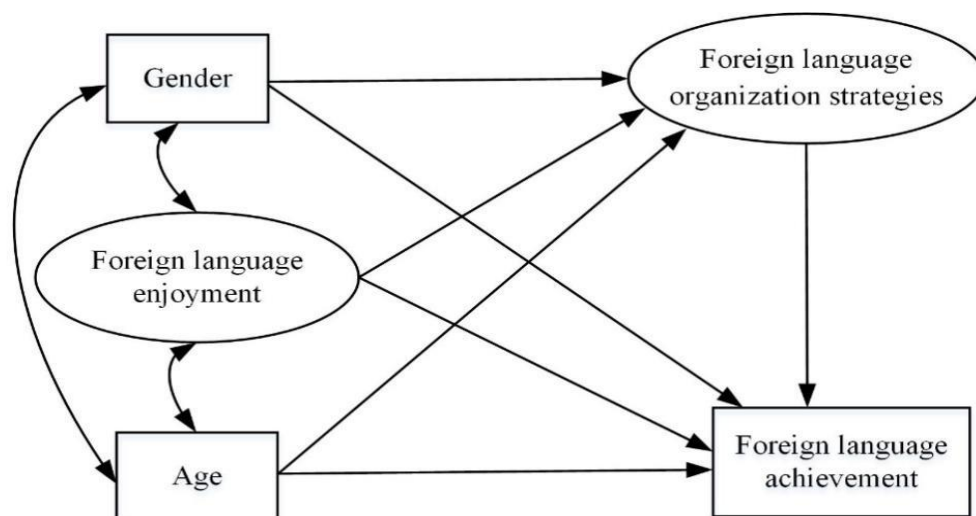


Figure 1: The proposed model

3. Method

3.1 Participants and Procedure

Participants were $N = 524$ seventh and eighth-grade students from twelve classrooms in one secondary school in southeastern China. The participating school was determined by convenience sampling. There were two hundred and seventy-six male students (52.7%) and two hundred and forty-eight female students (47.3%). Participants were between 12 and 15 years old, with an average age of 13.66 ($SD = .62$). In terms of grade, there were two hundred and eighteen seventh graders (41.6%) and three hundred and six eighth

graders (58.4%). As far as socioeconomic status is concerned, participants majorly come from middle-class families. Moreover, written informed consent was obtained from participants, and verbal informed consent was obtained from participants' parents or legal guardians before conducting the questionnaire survey.

The questionnaire survey was conducted in Chinese. The relevant measures were translated into Chinese and back-translated under the guidance of the international test commission (Hambleton, 1994). With the help of English teachers, the researchers explained the topics and objectives of the questionnaires survey to the participants and gave instructions on how to answer the items (e.g., the five-point Likert scale goes from strongly disagree to strongly agree from left to right, not the other way around). After completing the survey independently, the questionnaire was handed over to the English teachers. The questionnaire survey took about twenty minutes.

3.2 Measures

3.2.1 Foreign Language Enjoyment Scale

Participants' FLE was measured by the five items adapted from the *Achievement Emotions Questionnaire* (Pekrun et al., 2011). On the one hand, the domain specificity of achievement emotions determines that the academic enjoyment scale needs to be adapted to the foreign language education settings. For example, the original item "I enjoy being in class" was adapted to "I enjoy being in English class" to consider the domain specificity of achievement emotions. On the other hand, the present study concentrated on class-related items. In terms of pedagogical contexts, discrete achievement emotions could be divided into three categories: class-related, learning-related, and test-related (Pekrun et al., 2002a). However, Chinese EFL learners mainly learn English in classroom settings. Furthermore, academic enjoyment is a kind of positive activating emotion, thus, the relations between class-related enjoyment and motivation was somewhat stronger than that between test-related or learning-related enjoyment and motivation (Pekrun et al., 2002b). Therefore, the present study linked class-related FLE and FLP via the mediator of organizational strategies. Participants rated their agreement with the five items of the FLE scale on a five-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree). The psychometric properties of the FLE scale have been verified in prior studies (Dewaele & Li, 2022; Kang & Wu, 2022). The internal consistency of the FLE scale in this study was excellent, with Cronbach's alpha = .86 (see Table 1).

3.2.2 EFL-related Organizational Strategies Scale

Participants' use of organizational strategies in learning English was measured by the five-item EFL-related organizational strategies scale adapted from the Goal Orientation and Learning Strategies Survey (Dowson & McInerney, 2004). One example item is "I use summaries to help me organize and learn English". The reliability and validity of this scale has been verified (Kang & Wu, 2022). In this research, the internal consistency of the EFL-related organizational strategies scale was excellent (Cronbach's $\alpha = .89$). Five-point Likert scale was used to rate participants' responses to the items of the EFL-related

organizational strategies scale (1 = strongly disagree, 5 = strongly agree). Higher scores indicated that participants were likelier to use organizational strategies in English learning.

3.2.3 Foreign Language Proficiency

Participants' English scores were used to represent their FLP. The local municipal education bureau unified the English examination paper at the end of the semester to ensure the reliability, validity, and differentiation of the examination paper. The total mark of the examination paper is 100 points, including listening comprehension (15 points), vocabulary and grammar (25 points), filling in the blanks (15 points), and writing (20 points). The examination paper reflects multiple dimensions of foreign language proficiency. The higher the scores, the stronger the participants' foreign language proficiency.

3.3 Data Analysis

The evaluation of possible common method variance was first conducted for the present study based on self-reported data. If the common method bias was insignificant, the data analysis was performed in five steps. First, the descriptive statistics of the studied variables, including means, *SD*, skewness, kurtosis, Cronbach's α , and factor loadings, were collected to provide preliminary information (see Table 1). Second, the psychometric properties of the proposed measurement model (see Fig. 1) were assessed by conducting confirmatory factor analysis (CFA). Third, FLP was added to the measurement model and bivariate correlations were calculated. Fourth, the relationship between FLE, organizational strategies, and FLP was explored by conducting SEM. Fifth, the mediating effect of organizational strategies in the link between FLE and FLP was examined using a bootstrapping method with 5000 resamples to calculate 95% bias-corrected confidence intervals (BCa 95% CIs) (Hair et al., 2017).

4. Results

4.1 Common Method Bias

The data in the present study were all from the participants' self-reports, so Harman's single-factor test was carried out to rule out the potential common method bias (Podsakoff et al., 2003). Specifically, the single-factor structure of all items of the latent variables (i.e., FLE and FLP) was verified by conducting CFA. This structure demonstrated a poor model fit, with $\chi^2(44) = 1218.789$, $p < .001$, CFI = .644, TLI = .555, RMSEA = .226, 90% CI [.215, .237], SRMR = .108. Therefore, the common method bias would not affect the data analysis of the present study.

4.2 Descriptive Statistics

The results of the descriptive statistics for the studied variables are presented in Table 1. According to the standards of normality proposed by Roever and Phakiti (2017), the

variables had satisfactory normality for the maximum likelihood estimation if $|\text{skewness}| < 2$ and $|\text{kurtosis}| < 2$. As shown in Table 1, the $|\text{skewness}|$ of the studied variables ranged from .03 to .84, and the $|\text{kurtosis}|$ of which ranged from .13 to .28, which met the standards of normality. The mean value of FLE was 3.95 ($SD = .67$), indicating that Chinese secondary EFL learners experienced high enjoyment when learning English. Meanwhile, the use of organizational strategies was at a moderate level (Mean = 2.88, $SD = .58$).

Table 1: Descriptive statistics for studied variables

	Mean	SD	Skewness	Kurtosis	Cronbach's α	Factor loadings
FLE	3.95	.67	-.41	.13	.86	.57-.87
Organization strategies	2.88	.58	-.03	.28	.89	.69-.89
FLP	.00	.99	-.84	-.14	-	-

4.3 Measurement Models and Latent Bivariate Correlations

The association between ten indicators (i.e., the five indicators of the FLE and the five indicators of the EFL-related organizational strategies) and underlying constructs was assessed using *Mplus* 8.3 (Muthén & Muthén, 2013). According to the traditional cutoff criteria of indexes, the measurement model fits the data well if CFI (comparative fit index) $\geq .90$, the TLI (Tucker-Lewis index) $\geq .90$, RMSEA (root mean square error of approximation) $\leq .08$, and SRMR (standardized root mean square residual) $\leq .10$ (Chen, 2007; Hu & Bentler, 1999). According to these criteria, the measurement model demonstrated good model fit, with $\chi^2(34) = 139.862$, $p < .001$, CFI = .962, TLI = .950, RMSEA = .077, 90% CI [.064, .091], SRMR = .047. In addition, the factor loadings of these two variables (i.e., FLE and organizational strategies) ranged from .57 to .89, which satisfied the criteria that the factor loadings were not less than .35 (Byrne, 2010).

Table 2: Results of correlations matrix for the variables

	1	2	3	4	5
1. FLE	-				
2. Organizational strategies	.62***	-			
3. FLP	.37***	.59***	-		
4. Gender	.03	.07	.12**	-	
5. Age	.10*	.01	-.10*	-.06	-

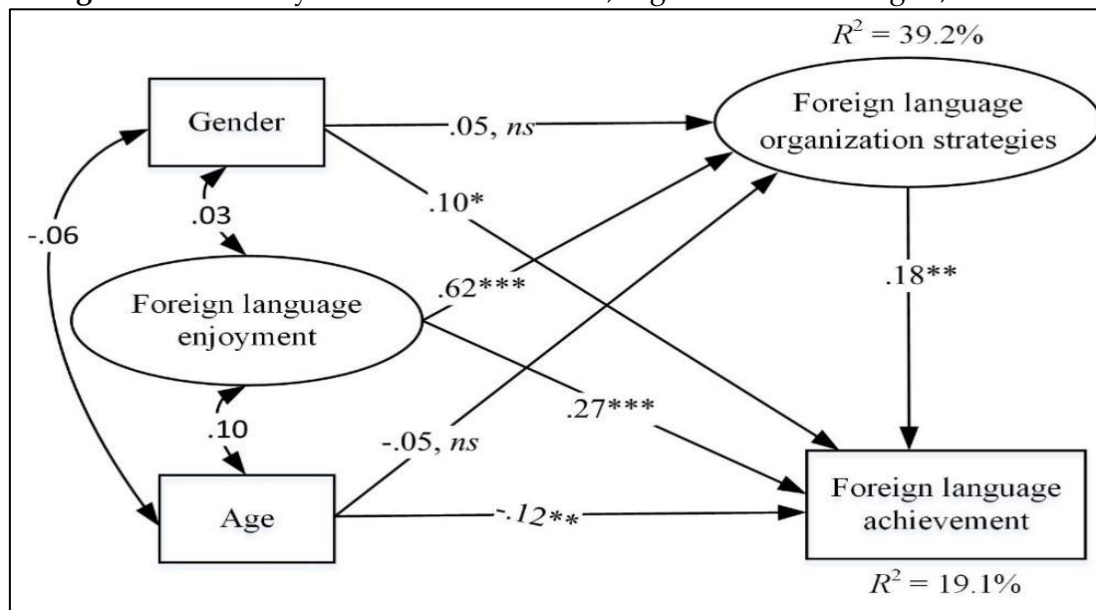
* $p < .05$; ** $p < .01$; *** $p < .001$.

Gender, age, and FLP were added to the structural model, and the measurement model also demonstrated an excellent fit to the data, for $\chi^2(58) = 215.713$, $p < .001$, CFI = .947, TLI = .928, RMSEA = .072, 90% CI [.062, .083], SRMR = .045. The results of latent bivariate correlations are presented in Table 2. It was found that FLE was positively correlated with organizational strategies and FLP. Moreover, we found that gender was positively correlated with FLP at $p < .01$, and age was negatively correlated with FLP at $p < .05$.

4.4 Structural Equation Modelling

Given that the measurement model fitted the data well, SEM analysis was carried out to test the proposed model (see Fig. 1). First, the structural model of the proposed model demonstrated a good fit to the data: $\chi^2(60) = 221.386$, $p < .001$, CFI = .945, TLI = .930, RMSEA = .072, 90% CI [.062, .082], SRMR = .051. The results of standardized regression weights are shown in Figure 2. The present study had five findings. First, FLE positively affected organizational strategies ($\beta = .62$, $SE = .04$, $p < .001$) and FLP ($\beta = .27$, $SE = .07$, $p < .001$). Second, EFL-related organizational strategies positively affected FLP ($\beta = .18$, $SE = .07$, $p < .01$). Third, gender (male = 0, female = 1) was positively correlated with FLP ($\beta = .10$, $SE = .04$, $p < .05$), indicating that female students' level of proficiency in English was higher than that of male students. Fourth, age was negatively correlated with FLP ($\beta = -.12$, $SE = .04$, $p < .01$), showing that the older the secondary EFL learners, the lower their English proficiency. Fifth, FLE explained significant proportions of variance in EFL-related organizational strategies (39.2%) and FLP (19.1%).

Figure 2: Path analytic model between FLE, organizational strategies, and FLP



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

Note: All the correlations and path coefficients are standardized, and *ns* denotes insignificant coefficients.

The mediating effect of organizational strategies in the link between FLE and FLP was explored using the bootstrap method with 5000 resamples. The results of the mediation analysis are presented in Table 3. On the one hand, the indirect effect was significant for BCa 95% CIs was [.12, .40], and zero was not contained in this interval, demonstrating that organizational strategies mediated the association between FLE and FLP. On the other hand, the direct effect of FLE on organizational strategies was significant for BCa 95% CIs was [.12, .40], and zero was not contained in this interval. Taken together, it could be concluded that organizational strategies partially mediated the relationship between FLE and FLP.

Table 3: Results of mediation analysis

Model path	Effect	SE	BCa 95% CIs	
			Lower	Upper
Total effect	.38	.05	.28	.47
Indirect effect: FLE → Organization strategies → FLP	.11	.04	.04	.20
Direct effect	.27	.07	.12	.40

5. Discussion

Pairwise correlations between achievement emotions, cognitive strategies, and academic achievement have been established. However, few studies have explored the potential mediating effects of cognitive strategies in the association between achievement emotions and academic achievement. In the EFL education field, more studies are needed on the relationship between FLE, organizational strategies, and FLP.

Thus, this research was designed to examine the mediating effect of organizational strategies in the link between FLE and FLP in a sample of Chinese secondary EFL learners.

First, this study found that FLE was positively correlated with FLP, indicating that H_1 was supported. This finding is consistent with previous studies (Dewaele & Li, 2022; Piechurska-Kuciel, 2017; Zhang et al., 2020). The control-value theory posits that positive achievement emotions (e.g., academic enjoyment) positively affect academic achievement (Pekrun, 2006; Pekrun et al., 2002b). This study verified the relationship between FLE and FLP, which provided a Chinese empirical basis for the control-value theory. This finding indicated that the control-value theory is valid in Chinese EFL education.

Second, correlation analysis indicated that FLE was positively correlated with the use of organizational strategies, showing that H_2 was supported. Within the framework of the control-value theory, Pekrun (2006) argued that positive achievement emotions (e.g., academic enjoyment) have positive effects on the key indicators of school outcomes, including cognitive strategies, motivation and engagement. Correlations between academic enjoyment and learning motivation (e.g., Wang, 2022) and academic engagement (e.g., Ainley & Ainley, 2011) have been verified in previous studies. However, the correlation between academic enjoyment and cognitive strategies lacks empirical evidence from the field of EFL education. This research contributed to the literature by identifying that FLE was positively correlated with EFL-related organizational strategies. On the one hand, this study provided an empirical basis for the control-value theory: positive achievement emotions (e.g., FLE) could positively affect cognitive strategies (e.g., EFL-related organizational strategies). On the other hand, this finding aligns with the theoretical hypothesis of the resources limitation theory (Garavan & O'Brien, 2011). Academic enjoyment, as a kind of positive-high arousal emotion, could not only expand an individual's cognitive resources (Fredrickson, 2004) but also reduce the occupation of one's limited cognitive resources, which was conducive to the use of cognitive strategies.

Third, organizational strategies partially mediated the association between FLE and FLP after controlling for gender and age, showing that H₃ was supported. Although the correlations between achievement emotions and cognitive strategies (e.g., Schukajlow et al., 2021) and between cognitive strategies and academic achievement (e.g., Donker et al., 2014) have been demonstrated, few studies have investigated the possible mediating role of cognitive strategies (e.g., organizational strategies) between achievement emotions (e.g., FLE) and academic achievement (e.g., FLP). This study is the first to verify the mediating effect of organizational strategies between FLE and FLP in the field of EFL education.

This research has three deficiencies which need to be addressed in future studies. First, this research explored the relationship between FLE, organizational strategies, and FLP using cross-sectional data, which limited us from drawing a causal relationship between these three constructs. Thus, future studies are suggested to further explore the relationship between FLE, organizational strategies, and FLP using longitudinal data. Second, this research only explored academic enjoyment and organizational strategies, while other positive achievement emotions (i.e., academic pride and hope) and cognitive strategies (i.e., rehearsal and elaborational strategies) need to be further explored to comprehensively explore the relationship between positive achievement emotions, cognitive strategies, and academic achievement. Third, participants in this research were limited to Han students influenced by Confucian heritage culture. In addition to the Han nationality, the leading ethnic group in China, there are fifty-five ethnic minorities (Yang, 2015). For the representativeness of the participants, future research is recommended to select participants from diverse cultural backgrounds.

Despite the deficiencies of this research, the findings of this research have theoretical and practical implications. Theoretically, the positive correlation between FLE and FLP (H1) provides empirical evidence for the control-value theory, and the corroborative association between FLE and organizational strategies (H2) provides an empirical basis for the resources limitation theory. Practically, the finding that organizational strategies mediated the relationship between FLE and FLP (H3) sheds light on the complex relationship between FLE and FLP, which could inform educational interventions for English educators (Fairchild & MacKinnon, 2009). Specifically, English educators are suggested to take measures (e.g., increasing academic and emotional support, fostering good teacher-student relationships, and setting appropriate achievement goals) (Clem et al., 2021; Estell & Perdue, 2013; Putwain et al., 2013) to improve students' enjoyment in learning English, which will improve their use of organizational strategies and further enhance their English proficiency.

6. Conclusion

This research explored the relationship between FLE, organizational strategies, and FLP in the settings of Chinese EFL education. In addition to confirming that FLE could positively affect FLP and organizational strategies, this research identified the mediating

role of organizational strategies in the association between FLE and FLP. The higher the level of enjoyment experienced by EFL learners in English learning, the more inclined they were to use organizational strategies to enhance their English proficiency further. EFL educators could promote students' use of organizational strategies by promoting their enjoyment of learning English and, thus, enhancing EFL learners' English proficiency.

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Conflict of Interest Statement

The author(s) declare that there is no potential conflict of interest.

About the Author(s)

Meihong Jiang is a senior lecturer at School of Humanities and Education, Foshan University, where she focuses her efforts on English teaching and conducting research on learners' psychology. Her dedication to these areas drives her to invest her time and energy, aiming to enhance English education and gain deeper insights into the cognitive processes of language learners. ORCID: <https://orcid.org/0009-0003-9022-5069>.

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