

## How academic enjoyment affect achievement in Chinese EFL context: The role of organizational strategies and engagement

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### ABSTRACT

Academic enjoyment, a positive emotion obtained from engaging in academic tasks, is positively related to the key indicators of academic outcomes, including learning strategy, academic engagement, motivation, and achievement. However, more studies are needed to understand the association between academic enjoyment and achievement, especially in the field of teaching English as a foreign language (EFL) in the Chinese context. This study aimed to investigate the mediating roles of organizational strategies and behavioural engagement in the relationship between academic enjoyment and EFL achievement. Data were collected from 499 Chinese secondary EFL learners during the seventh and eighth grades. Structural equation model (SEM) analyses found that academic enjoyment was positively linked to EFL achievement through the mediating roles of organizational strategy, behavioural engagement, and their chain relationship. The findings sorted out the theoretical framework of “academic enjoyment → organizational strategy → behavioural engagement → achievement”. Limitations and implications are discussed.

## 1. Introduction

Academic enjoyment is a kind of positive achievement emotion most commonly and intensely experienced in academic contexts (Piniel & Albert, 2018; Putwain et al., 2018). In the past decade, many empirical studies have examined the positive effects of academic enjoyment on key indicators of academic and well-being outcomes, including interest (Ainley & Ainley, 2011), academic self-concept (Westphal et al., 2018), academic engagement (Kang & Wu, 2022), and English achievement (Dewaele & Li, 2022). However, relatively few studies have explored the mediating mechanism between academic enjoyment and EFL achievement (Kang & Wu, 2022). Especially with the continuous deepening of positive psychology in the field of EFL education, probing the mechanism of academic enjoyment on EFL achievement will positively contribute to excavating the positive effects of academic enjoyment. Besides, existing studies on academic enjoyment were mainly conducted with senior high school students or college students as participants (Li, 2020; Li et al., 2020; Shao et al., 2020), and fewer studies have been carried out in a sample of junior high school students. Thus, this study sought to investigate the mediating mechanism between academic enjoyment and EFL performance in a sample of secondary school students, which would contribute to the literature by clarifying how academic enjoyment improves EFL achievement.

## 2. Literature review

### *Theoretical Framework*

The control-value theory (CVT) was concerned with the antecedents and effects of achievement emotions (Pekrun, 2006). On the one hand, the CVT posits that control and value appraisals are the two proximal antecedents for the generation of achievement emotions (Burić, 2015; Tze et al., 2022). On the other hand, the CVT also postulates that achievement emotions (e.g., academic enjoyment) affect learning strategies, motivation, and self-regulation of learning, which, in turn, would influence a student's academic achievement (Pekrun, 2006; Pekrun et al., 2002; Putwain et al., 2021). Drawing on the CVT, the present study hypothesized that academic enjoyment is related to EFL achievement via the mediators such as organizational strategy and behavioral engagement.

### *Academic enjoyment and EFL achievement*

Academic enjoyment refers to the sense of pleasure that a student experiences when studying a particular subject, which can also be used to refer to the degree to which a student likes the subject they are studying (Boliver & Capsada-Munsech, 2021). Existing studies verified the domain-specificity of achievement emotions (Goetz, Pekrun, et al., 2006), indicating that students may experience different emotions in different subjects (e.g., EFL, mathematics, and science). Achievement emotions are suggested to be construed in a domain-specific way (Dewaele & Li, 2022). Accordingly, the present study defines *academic enjoyment* as the sense of pleasure experienced in the EFL learning process.

Academic enjoyment positively affects EFL achievement (Dewaele & Alfawzan, 2018; Dewaele & MacIntyre, 2014; Kang & Wu, 2022; Li et al., 2020). For example, Li et al. (2020) documented that academic enjoyment could positively affect EFL in a sample of 1,307 Chinese high school students. Also, the CVT assumes that positive achievement emotions (e.g., academic enjoyment) have a positive influence on academic achievement (Pekrun, 2006). Both the theoretical hypothesis of the CVT and a series of empirical studies suggested that academic enjoyment positively predicts academic performance. However, research on academic enjoyment has just begun to unfold in the EFL learning context (Dewaele & MacIntyre, 2014). Furthermore, previous studies exploring the relationship between academic enjoyment and EFL achievement were mainly conducted on college and high school students, and few studies took secondary school students as the participants. To address these limitations, the present study investigated the correlation between academic enjoyment and EFL achievement in a sample of Chinese secondary school students.

### *Mediation of organizational strategy*

Organizational strategy is a kind of cognitive strategy, which refers to the strategy of integrating the internal connection between new knowledge and prior knowledge (Mulcahy-Ernt & Caverly, 2018; Pintrich et al., 1991), and thus, forming a new knowledge structure. Specifically, organizational strategy concerns the selection, sequencing, outlining, realignment, and summarization of the important learning content (Dowson & McInerney, 2004). Among the various learning strategies, Griffiths et al. (2014) documented that organizational strategy was the most commonly used learning strategy adopted by EFL learners in the Confucian-heritage setting.

Existing studies have explored the positive effects of organizational strategy on academic outcomes (Becirovic et al., 2021; Donker et al., 2014; Habók & Magyar, 2018; Kang & Wu, 2022). For example, Becirovic et al. (2021) documented that cognitive strategies were positively correlated with grade point average among high school students. In another study, Kang and Wu (2022) found that organizational strategy was positively correlated with EFL achievement. In addition, the correlation between academic enjoyment and organizational strategy was also verified (Goetz, Hall, et al., 2006; Kang & Wu, 2022; King & Areepattamannil, 2014). In a sample of 1,147 Philippine secondary school students, King and Areepattamannil (2014) explored the relationship between achievement emotions and learning strategies and found that positive achievement emotions (e.g., academic enjoyment) were positively correlated with cognitive strategies (e.g., organizational strategy). Similarly, Kang and Wu (2022) found that academic enjoyment was positively correlated with organizational strategy. Taken together, the previous correlational studies demonstrate that academic enjoyment might affect organizational strategy, which, in turn, might generate an influence on academic achievement.

### *Mediation of behavioral engagement*

Behavioral engagement refers to students' positive and active involvement in learning tasks (Fredricks et al., 2004). Specifically, students with a high level of behavioral engagement might be more actively involved in academic-related activities and demonstrate a strong interest in academic tasks (Hospel et al., 2016). Similarly, Nguyen et al. (2018)

summarized the three prominent components of behavioral engagement, those are, good conduct, effort, and participation. Unlike the other components of academic engagement (i.e., cognitive and psychological engagements), behavioral engagement was the only construct on which scholars reached a consensus (Olivier et al., 2020; Reeve & Tseng, 2011).

The predictive role of behavioral engagement on academic performance has been extensively explored (e.g., Fredricks et al., 2004; Lee, 2014; Olivier et al., 2020). For example, in a study of Belgian secondary school students, Olivier et al. (2020) investigated the relationship between behavioral engagement and reading competence and found that behavioral engagement was positively correlated with students' reading achievement. Moreover, the correlation between academic enjoyment and behavioral engagement was also corroborated in the school setting (Kang & Wu, 2022; King & Gaerlan, 2014; Wang, 2022). For instance, in a study conducted among Chinese college EFL students, Wang (2022) examined the effects of L2 enjoyment and academic motivation on academic engagement and found that enjoyment significantly influences academic engagement. Altogether, existing studies demonstrated that behavioral engagement might mediate between academic enjoyment and EFL achievement.

#### *The relationship between enjoyment, organizational strategy, engagement and EFL achievement*

The correlation between organizational strategy and behavioral engagement was also explored and confirmed in a number of studies (e.g., Gettinger & Walter, 2012; Taghani & Razavi, 2021). In addition, previous studies demonstrated that organizational strategy and behavioral engagement mediated the relationship between academic enjoyment and academic achievement, respectively. Thus, the present study hypothesized that the chain of organizational strategy and behavioral engagement might also play a mediating role between academic enjoyment and EFL achievement.

#### *The present study*

The present study aimed to explore the mediating mechanism between academic enjoyment and EFL achievement in the Chinese EFL context. English is one of the three exam-compulsory subjects (i.e., Chinese, mathematics, and English) for Chinese secondary school students. In addition to academic development, English is also of critical importance to the career advancement and social mobility of Chinese students (Cheng, 2008; Wu & Kang, 2021). Thus, exploring the antecedents of EFL achievement might have significant implications for improving the quality of EFL education.

As proposed, theoretically and empirically, organizational strategy, behavioral engagement, and the chain of organizational strategy and behavioral engagement might mediate the relationship between academic enjoyment and achievement. Accordingly, this study endeavored to examine the following four hypotheses.

H1: Academic enjoyment will positively predict EFL achievement.

H2: Organizational strategy mediates the relationship between academic enjoyment and EFL achievement.

H3: Behavioral engagement mediates the relationship between academic enjoyment and EFL achievement.

H4: The chain relation of organizational strategy and behavioral engagement mediates the relationship between academic enjoyment and EFL achievement.

### 3. Methods

#### *Participants and procedure*

A cluster sampling method was adopted, and 525 seventh and eighth graders from one secondary school in Kunming City, Yunnan province, China, participated in the questionnaire survey. In terms of socioeconomic status, most of the students at this school come from middle-class families. If there are missing data in a questionnaire, the questionnaire will no longer be used. In total, 499 valid questionnaires were collected, and the effective rate of questionnaire collection was 95.05%. The ages of the participants ranged from 12 to 15, with an average of 13.64 ( $SD = 0.612$ ). The participants comprised 266 boys (53.31%) and 233 girls (46.69%). All participants provided signed informed consent before taking part in the questionnaire survey.

With the help of English teachers, the questionnaires were completed during one 45-min English class period. Before conducting the questionnaire survey, English teachers were trained to ensure that participants' responses were honest and voluntary. The questionnaire was designed and answered in Chinese. To ensure the accuracy of the translated measures, translation-back-translation techniques were adopted to translate all measures from English to Chinese (Brislin, 1980). Five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used to measure the constructs. A high score means a stronger endorsement of the related measure.

## *Measurements*

### *Academic enjoyment*

Academic enjoyment was measured by the five-item scale developed by Pekrun et al. (2011). The five-item scale was adapted to measure EFL-related academic enjoyment (e.g., “I enjoy my English class”). Cronbach’s alpha for EFL-related academic enjoyment was 0.864, indicating that the internal consistency reliability of this scale was good. Results of confirmatory factor analysis demonstrated that the model fit of the EFL-related academic enjoyment scale was good:  $\chi^2(5) = 13.541$ ,  $CFI = 0.993$ ,  $TLI = 0.986$ ,  $RMSEA = 0.059$ ,  $SRMR = 0.020$ . In sum, the EFL-related academic enjoyment scale was reliable and credible in measuring Chinese secondary school students’ academic enjoyment of learning English. In this study, academic enjoyment was considered as a latent variable.

### *Organizational strategy*

Participants’ organizational strategy in the EFL learning context was measured using the five items adapted from the goal orientation and learning strategies survey developed by Dowson and McInerney (2004). An example item is “I study English by organizing my English notes”. The reliability of the organizational strategy scale was good with Cronbach’s alpha equaled to 0.896. A good data-model fit was also obtained for the confirmatory factor analysis results were satisfactory:  $\chi^2(5) = 14.588$ ,  $CFI = 0.993$ ,  $TLI = 0.987$ ,  $RMSEA = 0.062$ ,  $SRMR = 0.015$ . SEM analysis also treated the organizational strategy measure as a latent variable.

### *Behavioral engagement*

Behavioral engagement was assessed by the four-item scale adapted from the Engagement vs. dissatisfaction with learning questionnaire that developed by (Skinner et al., 2009). A representative item on the behavioral engagement scale was “I try hard to do well in English”. Cronbach’s alpha of the behavioral engagement scale was .841, indicating that the internal consistency reliability of this scale was good. In addition, confirmatory factor analysis results demonstrated that the model fit of this scale was satisfactory:  $\chi^2(2) = 8.582$ ,  $CFI = 0.992$ ,  $TLI = 0.975$ ,  $RMSEA = 0.081$ ,  $SRMR = 0.015$ . The behavioral engagement construct was also modelled as a latent variable in the present study.

### *EFL achievement*

English scores on the final exam were used to represent the EFL achievement of the participants. The English scores ranged from 0 to 120, with higher scores meaning higher levels of EFL achievement. The English test papers were uniformly developed by the Education Bureau of Kunming City and were centrally graded by the selected secondary school English teachers. In this study, EFL achievement was treated as an observable variable.

### *Data analysis*

Data were analyzed using SPSS version 22.0 and *Mplus* 8.3 (Muthén & Muthén, 2017). Specifically, data analysis was performed in two stages. First, a sequence of confirmatory factor analyses was carried out to evaluate the reliability and validity of the three latent variables mentioned above (e.g., academic enjoyment, organizational strategy, and behavioral engagement). Second, path coefficients of direct and indirect effects of organizational strategy and behavioral engagement between academic enjoyment and EFL achievement were examined by conducting confirmatory factor analyses (CFAs). Precisely, the mediating effects of organizational strategy, behavioral engagement, and chain relation of organizational strategy and behavioral engagement were assessed by employing bootstrapping technique with 5000 bootstrap resamples. If zero does not exist in the 95% bias-corrected and accelerated confidence intervals (BCa 95% CI), it can be concluded that the indirect effect is significant (Preacher & Hayes, 2008).

## 4. Results

### *Common method bias*

Harman’s single-factor test was carried out in this study to exclude the possible measurement errors caused by common method bias (Podsakoff et al., 2003). Results of single-factor CFA were  $\chi^2/df = 11.263$ ,  $CFI = 0.805$ ,  $TLI = 0.770$ ,  $RMSEA = 0.143$ ,  $SRMR = 0.073$ , showing that the model fit was not good. Thus, it could be deduced that there was no common method bias in the present study.

**Descriptive statistics and correlations**

Results of descriptive statistics and correlations among academic enjoyment, organizational strategy, behavioral engagement, and EFL achievement were demonstrated in Table 1. The results showed that academic enjoyment was positively correlated with organizational strategy, behavioral engagement, and EFL achievement. Besides, the correlations between organizational strategy and behavioral engagement, and EFL achievement were significant. Also, the positive correlation between behavioral engagement and EFL achievement was confirmed. As shown in Table 1, academic enjoyment was positively correlated with EFL achievement, indicating that Hypothesis 1 was supported.

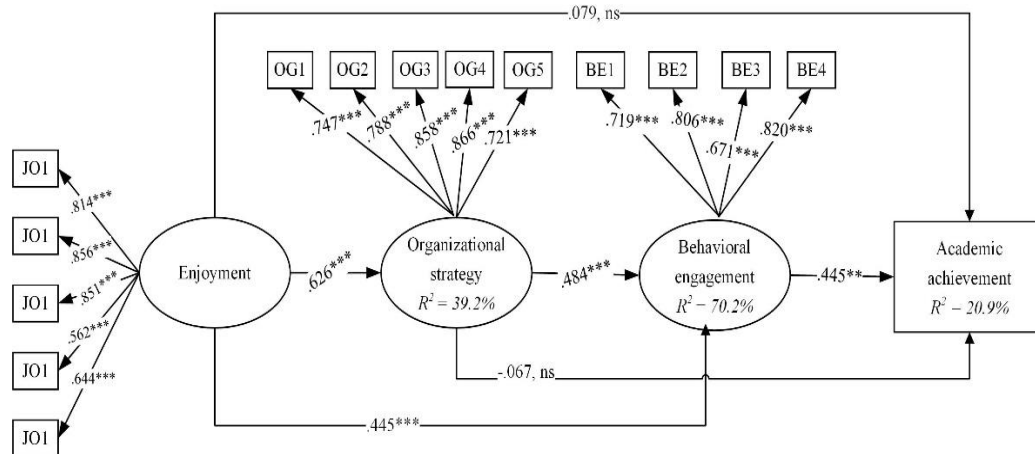
**Table 1.** Descriptive statistics and correlational coefficients of the study variables

	Academic enjoyment	Organizational strategy	Behavioral engagement	EFL achievement
Academic enjoyment	-			
Organizational strategy	0.591**	-		
Behavioral engagement	0.658**	0.676**	-	
EFL achievement	0.333**	0.294**	0.422**	-
Mean	3.757	2.883	2.965	90.644
SD	0.714	0.589	0.547	22.010

Note. \*\* $p < 0.01$ .

**Mediation effect modeling analysis**

The proposed hypotheses ( $H_1$  to  $H_4$ ) were assessed by carrying out latent variable SEM. Initially, a number of fit indices of the proposed model (see Figure 1) were evaluated. Results showed that the proposed model had appropriate fit indices, with  $\chi^2(85) = 189.809$ ,  $CFI = 0.975$ ,  $TLI = 0.969$ ,  $RMSEA = 0.050$ ,  $SRMR = 0.040$ .



**Figure 1** Serial mediating model between academic enjoyment and EFL achievement

Note. \*\*\* $p < .001$ , ns denote non-significant. Standardized path coefficients and standard error are presented.

As shown in Figure 1, all path coefficients expected for the organizational strategy and academic enjoyment to EFL achievement were significant. This study adopted the point estimate and the BCa 95% CIs to examine the mediation model. Specifically, the point estimates of the mediation effect in Path One (academic enjoyment→behavioral engagement→EFL achievement) were 0.198, and the BCa 95% CIs of this path were [0.105, 0.319], suggesting that

behavioral engagement had a significant effect between academic enjoyment and EFL achievement. This finding supported  $H_1$ . The point estimates of the indirect effect in Path Two (academic enjoyment→organizational strategy→behavioral engagement→ EFL achievement) were 0.135, and the BCa 95% CIs of this path were [0.073, 0.229], indicating that the chain relation of organizational strategy and behavioral engagement mediated the relationship between academic enjoyment and EFL achievement. Thus,  $H_4$  was supported. The point estimate for the mediation effect for Path Three (academic enjoyment→organizational strategy→EFL achievement) was -0.042, and the BCa 95% CIs of this path were [-0.133, 0.049], showing that the mediating effect of organizational strategy between academic enjoyment and EFL achievement was not significant because zero was contained. This finding meant that  $H_2$  was not supported.

As shown in Table 2, the BCa 95% CIs of the direct effect between academic enjoyment and EFL achievement were [-0.087, 0.232], indicating that the direct effect was not significant. The nonsignificant direct effect between academic enjoyment and EFL achievement meant that organizational strategy and behavioral engagement served a complete mediating role between academic enjoyment and EFL achievement. The total indirect effect was 0.291, and the total effect was 0.370, and thus, the total mediating effect size equaled to 78.65% for  $P_M$  (mediating effect divided by the total effect) =  $0.291/0.370 = 0.786$ . Particularly, behavioral engagement accounted for 53.5% of the total mediation effect, while the chain relation of organizational strategy and behavioral engagement took up 36.5% of the total mediation effect.

**Table 2.** Mediating effects of organizational strategy and behavioral engagement in the relationship between academic enjoyment and EFL achievement

Path	Point estimate	Parameters		Bootstrap 5000 times 95% CI	
		S.E.	Est./S.E.	Lower	Upper
Enjoyment→organizational strategy → achievement	-0.042	0.047	-0.898	-0.133	0.049
Enjoyment→engagement→achievement	0.198	0.054	3.659	<b>0.105</b>	<b>0.319</b>
Enjoyment→organizational strategy→engagement→achievement	0.135	0.038	3.573	<b>0.073</b>	<b>0.229</b>
Total indirect	0.291	0.060	4.865	<b>0.176</b>	<b>0.416</b>
Direct effect	0.079	0.080	0.983	-0.087	0.232
Total effect	0.370	0.047	7.900	<b>0.275</b>	<b>0.459</b>

Note. BCa 95% CIs not containing zero are demonstrated in bold.

## 5. Discussion

Drawing upon the CVT, a growing number of studies have been conducted concerning achievement emotions in the EFL contexts (e.g., Dewaele & Li, 2022; Kang & Wu, 2022; Westphal et al., 2018). The existing studies have explored the correlations between achievement emotions (e.g., academic enjoyment) and EFL-related outcomes (e.g., academic engagement, learning motivation, and academic achievement). However, the existing research on the mediating mechanism between academic enjoyment and academic achievement was relatively limited. Additionally, previous studies on academic enjoyment and achievement have primarily been conducted in high school and college groups, and secondary school students were rarely explored. To fill the gaps, the present study explored the mediating mechanism between academic enjoyment and EFL achievement in a sample of Chinese secondary school students.

Results of correlation analysis showed that academic enjoyment was positively correlated with EFL achievement, indicating that  $H_1$  was supported. This finding is consistent with previous studies investigating the relationship between academic enjoyment and academic outcomes (e.g., Dewaele & Alfawzan, 2018; Dewaele & MacIntyre, 2014). The contribution of this finding to literature is twofold. First, the present study, conducted in the context of Confucian Heritage culture, provides empirical evidence for the correlation between academic enjoyment and EFL achievement. Second, this finding validated the theoretical hypothesis of the CVT that achievement emotions could affect academic achievement (Pekrun, 2006).

Results of the mediation analysis showed that the mediating effect of organizational strategy between academic enjoyment and EFL achievement was insignificant, suggesting that  $H_2$  was not supported. This finding was inconsistent

with existing studies (e.g., Ahmed et al., 2013; Kang & Wu, 2022). There are two possible reasons why this finding is inconsistent with previous research. First, the effect of organizational strategy on academic achievement probably be indirect. In other words, the organizational strategy might affect academic achievement through mediators such as academic self-efficacy (Yip, 2012), and student engagement (Jusuf et al., 2019). Second, this study is a chain mediation study exploring the mediation mechanism between academic enjoyment and EFL achievement, and thus, the specific mediation effect of Path Three (academic enjoyment→organizational strategy→EFL achievement) might be influenced by the indirect effects of other Paths (Hayes, 2009).

Results of SEM analyses also indicated that behavioral engagement plays a mediating role between academic enjoyment and EFL achievement, showing that H3 was supported. This finding is in line with existing studies that achievement emotions might act upon academic achievement through academic engagement (King & Gaerlan, 2014; Pekrun, 2006). On the one hand, this finding verified the theoretical assumptions of the CVT that achievement emotions would affect academic achievement via the mediators such as learning motivation and academic engagement (Pekrun, 2006). On the other hand, the mediation mechanism between academic enjoyment and academic achievement was explored in the Chinese EFL context, contributing to a better understanding of how academic enjoyment acts on EFL achievement. Specifically, the mediation effect of behavioral engagement was 53.5%, indicating that academic enjoyment mainly affects EFL achievement via behavioral engagement.

The chain relation of organizational strategy and behavioral engagement also played a mediating role between academic enjoyment and EFL achievement, indicating that H4 was supported. The mediation effect of this chain path (academic enjoyment→organizational strategy→behavioral engagement→EFL achievement) was 36.5%, showing that academic enjoyment could also positively affect EFL achievement by affecting organizational strategy and behavioral engagement. This finding shed new light on how academic enjoyment affected EFL performance. Specifically, EFL students with a high level of academic enjoyment are more inclined to adopt an organizational strategy that will promote their involvement and initiative in learning EFL and then enhance their EFL achievement.

#### *Implications, limitations, and directions for future research*

With the continuous deepening of the concepts and applications of positive psychology in the field of foreign language education, identifying the consequences of academic enjoyment and the mediation mechanism between academic enjoyment and EFL achievement have both theoretical and practical significance. Practically, academic enjoyment could positively affect EFL achievement through behavioral engagement or the chain relation of organizational strategy and behavioral engagement, implying that enhancing EFL students' pleasurable emotional experience might be a possible way to improve students' achievement. Specifically, parents' encouragement and praise (Gunderson et al., 2018), English teachers' adoption of open, extrovert, and agreeable teaching attitudes (Ahmadi-Azad et al., 2020), and the creation of a mutual-help classroom atmosphere (Mohammad Hosseini et al., 2022) are the possible routes to enhance students' academic enjoyment, which, in turn, positively affect EFL students' achievement via the mediators of organizational strategy and behavioral engagement. Moreover, these findings elaborated the theoretical hypothesis of the CVT on a domain-specific approach (Pekrun, 2006), that is, elucidating the mechanism by which academic enjoyment affects EFL achievement.

Despite the meaningful findings, however, there are three limitations that need to be addressed. First, the cross-sectional design of the present study prevents us from comprehensively understanding the relationship and mechanism between academic enjoyment and EFL achievement. Future studies are recommended to adopt a longitudinal design to reveal the causal relationship between academic enjoyment and EFL achievement. Second, age, gender, and socioeconomic status differences exist in achievement emotions and academic achievement (Erturan & Jansen, 2015; Pekrun et al., 2017, 2022), suggesting that future studies should control for these variables when exploring the mechanism between academic enjoyment and achievement. Thirdly, the conduct of the present study was limited to one secondary school in Kunming City, which could not represent the whole picture of Chinese secondary school EFL learners. Thus, future research is encouraged to recruit participants from more secondary schools to guarantee the generalisability of the findings.

## 6. Conclusion

The present study demonstrated that academic enjoyment affects EFL achievement through behavioral engagement and the chain relation of organizational strategy and behavioral engagement. EFL learners with a high level of academic enjoyment are more likely to adopt an organizational strategy and engage more in the learning process compared to counterparts with a low level of enjoyment. Parents, teachers, and peers could do well to promote EFL learners' use of organizational strategy and their level of involvement in EFL learning by boosting students' academic enjoyment, thereby achieving positive results in EFL learning.

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