



Foreign Language Learning Boredom, Academic Engagement, and Achievement: A Mediation Model

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Abstract: Boredom, as a commonly experienced negative, deactivating achievement emotion, is significantly correlated with the key indicators of academic and well-being outcomes. However, compared with enjoyment and anxiety, boredom in the field of English as a foreign language (EFL), especially the mediating mechanism of boredom on academic performance, still remains relatively unexplored. This study aimed to test whether academic engagement mediated the relationship between boredom and academic achievement in the EFL setting. Data were collected from 535 Chinese EFL secondary school students. Structural equation model (SEM) was used to analyze the data. The findings showed that boredom negatively predicted EFL achievement and academic engagement mediated the relation between boredom and EFL achievement. Limitations and implications are discussed.

Keywords: Achievement Emotions, Boredom, Academic Engagement, EFL Achievement

1. Introduction

Boredom is a kind of negative, deactivating, outcome-related achievement emotion that negatively affects academic performance (Daniels *et al.*, 2015; C. Li & Li, 2022; Tze *et al.*, 2016). Based on the control-value theory of achievement emotions, researchers have expanded their understanding and research scope of achievement emotions (Kang *et al.*, 2021; Kang & Wu, 2021; C. Li *et al.*, 2020; Pekrun, 2006). Precisely, researchers' exploration of achievement emotions is no longer limited to enjoyment and anxiety. Other achievement emotions, including boredom, have also begun to enter the researchers' horizons (Kruk *et al.*, 2021). However, most of the existing studies have been carried out in the Western context, and few studies have focused on the boredom of Chinese secondary school students and its impact on EFL achievement. Also, the mechanism of bored EFL achievement directly or indirectly through the mediator of academic engagement.

2. Literature Review

2.1 Academic Boredom and EFL Achievement

Boredom refers to a destructive feeling that negatively affects an individual's accomplishment. As a kind of achievement emotion, boredom can also be described from three dimensions: valence, activation, and object focus. In terms of valence, achievement emotions can be divided into two categories: positive emotions (e.g., enjoyment) and negative emotions (e.g., boredom). Regarding activation, achievement emotions can be classified as activating emotions, including enjoyment, hope, and pride, which would trigger students' physiological response to learning tasks. On the contrary, deactivating emotions such as boredom might decrease an individual's enthusiasm for learning (e.g., Pekrun & Stephens, 2010; Shao *et al.*, 2020). Concerning object focus, achievement emotions are either activity-related (e.g., boredom) or outcome-related (e.g., hope, anxiety). Therefore, boredom is seen as a negative, deactivating, activity-related emotion (Pekrun *et al.*, 2007), and it could be speculated that boredom harms academic performance.



Building on the control-value theory (Pekrun, 2006), a group of empirical studies have explored the relationship between boredom and academic achievement and found that boredom is negatively correlated with academic achievement (e.g., Pawlak *et al.*, 2020; Pekrun *et al.*, 2014; Tze *et al.*, 2016; Xie, 2021). For example, Pawlak *et al.*, (2020) documented that boredom in English language classes was negatively correlated with English achievement and low-achievers were more likely to experience boredom in a sample of 107 Polish English majors. A meta-analysis by Tze *et al.*, (2016) focusing on the relationship between boredom and academic outcomes conducted in academic settings found that academic boredom had significant adverse effects on academic motivation, study strategies, behaviours, and achievement, and boredom experienced in class was more destructive than boredom experienced while studying.

Existing studies on the correlation between academic boredom and achievement provide a theoretical framework for the present study. However, at least three limitations in existing studies need further exploration. First, the correlational design of the previous studies did not reveal the complex mechanism between boredom and academic achievement (e.g., Eren & Coskun, 2016; Macklem, 2018). Second, the causal relationship between boredom and academic achievement has been inconsistent (Pekrun *et al.*, 2014). Third, the existing studies were predominantly conducted in the Western contexts, and less attention has been paid to the boredom in EFL learning of Chinese secondary school students. To address these limitations, the present study aimed to examine the relationship between boredom and academic achievement as well as the mediating effect of academic engagement between these two variables in a sample of 535 Chinese EFL secondary school students.

2.2 The Mediating Role of Academic Engagement Underpinning the Relationship Between Academic Boredom and EFL Achievement

Academic engagement refers to students' active involvement in learning tasks (Reeve, 2013). The multifaceted nature of academic engagement manifests that academic engagement consists of three components: behavioural engagement, emotional engagement, and cognitive engagement (Fredricks *et al.*, 2004; Sinatra *et al.*, 2015). Behavioural engagement concerns the involvement aspect, particularly students' involvement in academic, social, or extracurricular activities. The emotional engagement draws on students' positive or negative reactions to academics, school, and significant others such as teachers and peers. Meanwhile, cognitive engagement deals with students' investment in thoughtfulness and willingness to comprehend complex concepts and master difficult skills. These three dimensions of academic engagement were closely related to academic outcomes (Kang & Wu, 2022; Lei *et al.*, 2018), interactive behaviours (Dao & Sato, 2021), and self-regulated learning (Li & Lajoie, 2021). Therefore, it can be inferred that academic engagement would influence students' learning strategies, interpersonal relationships, and academic outcomes.

Previous studies have verified the correlation between academic boredom and academic engagement (e.g., Dewaele & Li, 2021; Macklem, 2018; Tze *et al.*, 2014). For example, Dewaele and Li (2021) examined the mediation effects of boredom and enjoyment between teacher enthusiasm and socio-behavior learning engagement and found that boredom was significantly correlated with student engagement in a sample of 2002 Chinese university EFL learners. Furthermore, the correlation between academic engagement and achievement has also been widely confirmed (Barnett *et al.*, 2020; Everingham *et al.*, 2017; Lee, 2014; Martínez *et al.*, 2019). For example, in samples of 389 Spanish and 243 Portuguese undergraduate students, academic engagement has been shown to positively predict academic achievement (Martínez *et al.*, 2019). To sum up, boredom can influence academic engagement, and academic engagement also exerts an impact on academic performance. Therefore, we can hypothesise that boredom might affect academic performance via the mediator of academic engagement.

2.3 Aims and Hypotheses of the Present Study

The present study aimed to examine the mediating mechanism between academic boredom and achievement in a sample of Chinese secondary EFL learners. Pawlak *et al.* (2020) argued that academic boredom is one of the most commonly experienced emotions in EFL learning settings. The negative influence of academic boredom on EFL achievement has also been confirmed in the existing studies (e.g., Li *et al.*, 2021; Li & Li, 2022). Therefore, it is of



significance to explore the possible mediator between academic boredom and EFL achievement to uncover how boredom affects EFL achievement. To be specific, this study aimed to examine the following two hypotheses.

Hypotheses 1: Academic boredom has a negative influence on EFL achievement.

Hypotheses 2: Academic engagement mediates the association between academic boredom and EFL achievement.

3. Method

3.1 Participants and Procedure

A total of 535 seventh grade (N = 222) and eighth grade (N= 313) EFL learners from one secondary school in Kunming City, China, participated in the present survey. The mean age of participants was 13.66 years (SD = 0.62), with 53.1% males and 46.9% females. As far as the socio-economic status was concerned, most participants came from middle-class families. The questionnaires were administered in pencil-and-paper format in the classroom. Consents were obtained from the students, teachers, and principals before answering the questionnaire. Only data from students who have submitted written consent will be analyzed.

3.2 Measures

Foreign Language Learning Boredom

Foreign language learning boredom was measured by the scale adapted from the Achievement Emotions Questionnaire (AEQ) (Pekrun *et al.*, 2011). This study explored boredom in the classroom setting, therefore, the five classroom-related items were adopted and adapted from the AEQ to measure students' boredom experienced in the EFL classroom (e.g., "I feel boredom in English class"). These five items were rated using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The higher the score is, the higher the boredom level is in the EFL class. In this study, the internal consistency of the boredom subscale was good for Cronbach's α equals to 0.87. In the SEM analysis, foreign language learning boredom was regarded as a latent variable.

Foreign Language Engagement

Foreign language engagement was measured by four items adapted from the Engagement and Disaffection Scale (Skinner *et al.*, 2009). The four-item foreign language engagement subscale was applied to measure students' involvement in the EFL classroom (e.g., "I try very hard in EFL learning"). The foreign language engagement scale was rated on a five-point Likert scale (from 1 = strongly disagree to 5 = strongly agree). The higher the score, the higher the students' engagement in the EFL classroom. This scale had good internal consistency with Cronbach's α = 0.88. Foreign language engagement in the present study was treated as a latent variable in SEM analysis.

Foreign Language Achievement

Students' final English course exam scores were collected to represent their foreign language achievement. The examination paper was developed by the municipal education bureau and was graded by the English teachers. The full score of the examination paper is 120 points, and the higher the score, the higher the student's foreign language achievement. Foreign language achievement was treated as an observed variable.

Covariate

The present study aimed to examine the mediating effect of academic engagement between boredom and academic achievement in the EFL setting. However, previous studies demonstrated gender differences in academic engagement (e.g., Abulela & Bart, 2021; Kessels *et al.*, 2014). Therefore, gender was treated as the covariate while the mediating relationship between boredom, academic engagement, and EFL achievement was explored.



3.3 Data analysis

Data were analyzed in three stages using latent structural equation modelling with Mplus 8.3 (Muthén & Muthén, 1998-2019). First, descriptive statistics and correlations between the studied variables were calculated. Second, confirmatory was used to test the properties of the proposed measurement model consisting of latent variables of boredom and academic engagement. Third, SEM was conducted to test the structural relations in the hypothesized model. Fourth, we implemented the bootstrap procedure with 5000 re-samples to test indirect effects, constructing 95% bias-corrected and accelerated (BCa) confidence intervals (CI). The indirect effect is significant if zero is not included in the BCa 95% CI.

The maximum likelihood (ML) estimation was used to estimate parameters, and model fit was good for all latent constructs based on traditional cutoff criteria indicative of excellent and adequate fit, respectively: (a) comparative fit index (CFI) and Tucker–Lewis index (TLI) ≥ 0.95 and ≥ 0.90 , respectively; (b) root mean square error of approximation (RMSEA) ≤ 0.06 and ≤ 0.08 ; and (c) standardized root mean square residual (SRMR) ≤ 0.08 and ≤ 0.10 (Chen, 2007; Hu & Bentler, 1999).

4. Results

4.1 Preliminary Analysis

Table 1 shows means, standard deviations, skewness, kurtosis, reliability, and the relationship between study variables. The internal consistency of the two variables (i.e., boredom and academic engagement) were good because they were satisfactory for Cronbach's α were all greater than .70 (Fabrigar *et al.*, 1999). The correlations between studied variables (i.e., boredom, engagement, and academic achievement) were statistically significant and in the expected direction.

Table 1. Descriptive statistics, Cronbach's α , and correlations for the variables

	Mean	SD	Skewness	Kurtosis	Cronbach's α	1	2	3	4
1. Boredom	2.00	.75	.56	.16	.87	-			
2. Engagement	2.96	.57	-.15	.36	.88	-.61**	-		
3. Achievement	90.81	21.72	-.86	-.09	-	-.38**	.44**	-	
4. Gender	-	-	-	-	-	-.05	.01	.11**	-

** $p < .01$

4.2 Measurement and Structural Model

The measurement model (M1) consists of two latent factors and nine indicators. Specifically, boredom had five indicators, and engagement had four indicators. The results of the CFA showed a good fit for the measurement model (see Table 2, M1). As shown in Figure 1, the factor loadings were statistically significant at $p < .001$, which considerably exceeded the factor loading criterion of .35 (Byrne, 2010).

Table 2. Model fit indices from CFA and SEM analysis

	χ^2	df	CFI	TLI	RMSEA	95% CI	SRMR
M ₁ Measurement model	85.859***	26	.979	.971	.032	[.051, .081]	.032
M ₂ Structural model	119.610***	41	.974	.965	.060	[.048, .072]	.033

Based on the good fit of the measurement model, SEM analysis was conducted to examine the hypothesized model while controlling for gender. SEM results showed that the model fits were good (see Table 2, M₂). Figure 2 displays the proposed model with standardized regression weights. The significant direct path coefficients were: (1) from boredom to engagement ($\beta = -0.670$, $p < 0.001$); (2) from engagement to academic achievement ($\beta = 0.324$,



$p < 0.001$); (3) from boredom to academic achievement ($\beta = -0.182, p < 0.01$). The proposed model explained significant proportions of variance in academic engagement (44.9%) and academic achievement (22.6%).

As for the observed variables, Gender (male = 1 and female = 2) was positively related to academic achievement ($\beta = 0.091, p < 0.05$), suggesting that female students reported higher foreign language achievement than male students.

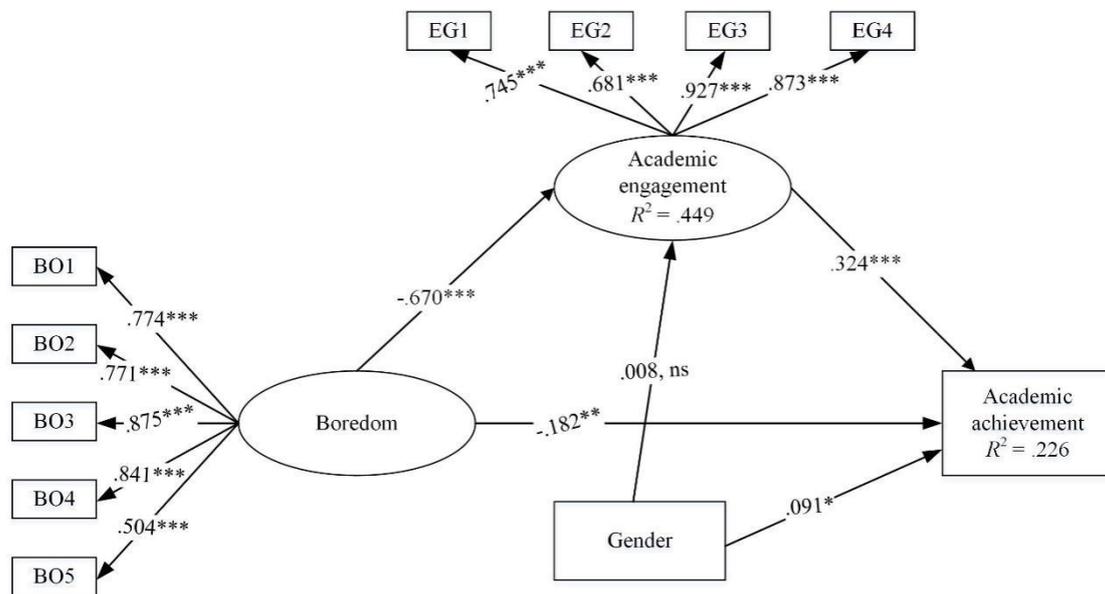


Figure 1. The relations between boredom, engagement, and academic achievement. All standardized coefficients are presented. ** $p < 0.001$; * $p < 0.05$; ns = non-significant effects.

4.3 Test for Mediation

Figure 1 presents the overall coefficients of the mediation analysis. Supporting our hypothesis, we found a significant indirect effect of foreign language boredom on academic achievement ($ab = -0.217, SE = 0.043, BCa 95\% CI [-0.306, -0.137]$) (see Table 3), accounting for 54.4% of the total effect of boredom on academic achievement. The direct effect from boredom to academic achievement was still significant ($c' = -0.182, SE = 0.066, BCa 95\% CI [-0.304, -0.052]$), accounting 45.6% of the total effect of boredom on academic achievement.

Table 3. Mediation Analysis Results

	Effect	SE	95% CI	
			Lower	Upper
<i>c</i> Boredom-academic achievement (total effect)	-0.399	.045	-0.486	-0.310
<i>c'</i> Boredom-academic achievement (direct effect)	-0.182	.066	-0.304	-0.052
<i>ab</i> Boredom-engagement-academic achievement (indirect effect)	-0.217	.043	-0.306	-0.137

Note: CIs not containing zero are shown in bold.

5. Discussion

This study found that boredom was negatively correlated with EFL achievement, indicating that hypothesis 1 was supported. This finding is consistent with previous studies that examined the correlation between boredom and academic performance in EFL settings (Dewaele & Li, 2021; Xie, 2021; Zawodniak *et al.*, 2017). This finding contributes to the literature in two ways. First, in line with the control-value theory of achievement emotions (Pekrun, 2006), this study provides empirical evidence that boredom, as a negative achievement emotion, negatively affects academic performance in the Chinese secondary EFL setting. Second, this finding indicates that boredom negatively



impacted academic outcomes in the non-Western context of Confucian Heritage culture, exploring the correlation between boredom and EFL achievement in a broader cultural context. Existing studies documented that boredom is not without benefits. In certain cultural contexts, boredom positively affects students' curiosity and creativity (Bench & Lench, 2019; Chentsova-Dutton *et al.*, 2014; Hunter *et al.*, 2016), implying that cultural context should be taken into consideration when examining the correlation between boredom and academic outcomes.

Our results also confirmed the mediating role of academic engagement between boredom and achievement, that is, hypothesis 2 was supported. This finding is in line with the existing studies (e.g., Ding & Zhao, 2020; Macklem, 2018; Sharp *et al.*, 2020). This finding has theoretical and practical contributions to the literature. First, this finding expands the theoretical framework of the control-value theory. The control-value theory of achievement emotions argues that control and value appraisals are the two proximal antecedents of achievement emotions, which in turn exert influence on students' academic outcomes (Putwain *et al.*, 2021); However, the possible mechanism by which boredom acts upon academic performance has not been systematically explored, especially in the Chinese EFL context. Second, the mechanism of academic boredom on achievement was explored, which contributes to EFL educators' understanding of how boredom affects achievement.

Furthermore, academic engagement partially mediates between boredom and academic achievement, accounting for 45.6% of the total mediation effect of boredom on academic achievement. This finding has three implications. First, academic boredom has direct and indirect effects on EFL achievement. Second, in addition to academic engagement, there are other constructs that mediate the relationship between boredom and EFL achievement. Third, the mediation effect of academic engagement accounts for 45.6%, indicating that academic engagement is more requested than other possible mediators to give full play to academic boredom on EFL achievement.

6. Implications, Limitations, and Directions for Future Research

This finding in this study has theoretical and practical implications for the relevance of academic boredom and EFL achievement in the Chinese EFL context. Theoretically, this study confirmed the mediating effect of academic engagement between academic boredom and EFL achievement, thus expanding the theoretical framework of the control-value theory. Practically, the negative correlation between academic boredom and EFL achievement suggests that reducing EFL-related boredom would improve students' EFL achievement. Therefore, EFL teachers are expected to take measures (e.g., enriching instructional practices, teaching according to students' ability, and upgrading teaching materials and methods) to reduce their students' boredom level (e.g., Kruk *et al.*, 2021; Preckel *et al.*, 2010; Zawodniak & Kruk, 2018) and parents are advised to devote themselves to shielding their children from boredom by way of providing positive feedback and strengthening interaction with children's EFL teachers (Bridgeland *et al.*, 2010).

Three limitations need to be addressed. First, data for all variables in the present study were self-reported, thus the common method bias could not be completely avoided (Podsakoff *et al.*, 2003). Future research is recommended to incorporate teachers' and peers' assessments of the participants' EFL-related boredom and academic engagement to complement the self-report measures. Second, the cross-sectional design of the present study implies that we cannot draw a causal relationship between these variables (i.e., academic boredom, engagement, and achievement). A longitudinal design is recommended for future studies to confirm the causal relationship between these variables. Lastly, this study only examined the mediating effect of academic engagement between boredom and achievement and revealed that academic engagement partially mediated the relationship between boredom and EFL achievement. Therefore, future studies were suggested to consider more mediators to comprehensively understand the mechanism of academic boredom on EFL achievement.

7. Conclusion

To conclude, this study confirmed the significant negative correlation between academic boredom and EFL achievement in a sample of Chinese secondary school students. In addition, the mediating effect of academic engagement between academic boredom and EFL achievement was also verified. Given that boredom is one commonly experienced emotion in the EFL learning context, exploring the mechanism of academic boredom on



achievement will benefit the EFL educators in understanding how boredom affects academic performance, which, in turn, helps to prevent EFL learners from the detrimental effects of academic boredom in EFL learning.

References

- Abulela, M.A.A., & Bart, W.M. (2021). Learning and study strategies and engagement among Egyptian undergraduates: Do gender and discipline matter?. *Educational Psychology*, 41(9), 1160–1179. <https://doi.org/10.1080/01443410.2020.1834076>
- Barnett, M.D., Melugin, P.R., & Hernandez, J. (2020). Time Perspective, Intended Academic Engagement, and Academic Performance. *Current Psychology*, 39, 761–767. <https://doi.org/10.1007/s12144-017-9771-9>
- Bench, S.W., & Lench, H.C. (2019). Boredom as a seeking state: Boredom prompts the pursuit of novel (even negative) experiences. *Emotion*, 19(2), 242–254. <https://doi.org/10.1037/emo0000433>
- Bridgeland, J.M., Balfanz, R., Moore, L.A., & Friant, R.S. (2010). Raising Their Voices: Engaging Students, Teachers, and Parents to Help End the High School Dropout Epidemic. *Civic Enterprises*, 60.
- Byrne, B.M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Routledge, United Kingdom.
- Chen, F.F. (2007). Sensitivity of Goodness of Fit Indexes to Lack of Measurement Invariance. *Structural Equation Modeling*, 14(3), 464–504. <https://doi.org/10.1080/10705510701301834>
- Chentsova-Dutton, Y.E., Senft, N., & Ryder, A.G. (2014). Listening to Negative Emotions: How Culture Constrains what we Hear. *The Positive side of Negative Emotions*, The Guilford Press, 146–178.
- Daniels, L.M., Tze, V.M.C., & Goetz, T. (2015). Examining boredom: Different causes for different coping profiles. *Learning and Individual Differences*, 37, 255–261. <https://doi.org/10.1016/j.lindif.2014.11.004>
- Dao, P., & Sato, M. (2021). Exploring fluctuations in the relationship between learners' positive emotional engagement and their interactional behaviours. *Language Teaching Research*, 25(6), 972–994. <https://doi.org/10.1177/13621688211044238>
- Dewaele, J.M., & Li, C. (2021). Teacher enthusiasm and students' social-behavioral learning engagement: The mediating role of student enjoyment and boredom in Chinese EFL classes. *Language Teaching Research*, 25(6), 922–945. <https://doi.org/10.1177/13621688211014538>
- Ding, Y., & Zhao, T. (2020). Emotions, engagement, and self-perceived achievement in a small private online course. *Journal of Computer Assisted Learning*, 36(4), 449–457. <https://doi.org/10.1111/jcal.12410>
- Eren, A., & Coskun, H. (2016). Students' level of boredom, boredom coping strategies, epistemic curiosity, and graded performance. *The Journal of Educational Research*, 109(6), 574–588. <https://doi.org/10.1080/00220671.2014.999364>
- Everingham, Y.L., Gyuris, E., & Connolly, S.R. (2017). Enhancing student engagement to positively impact mathematics anxiety, confidence and achievement for interdisciplinary science subjects. *International Journal of Mathematical Education in Science and Technology*, 48(8), 1153–1165. <https://doi.org/10.1080/0020739X.2017.1305130>
- Fabrigar, L.R., Wegener, D.T., Maccallum, R.C., & Strahan, E.J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, 4(3), 272–299. <https://doi.org/10.1037/1082-989X.4.3.272>
- Fredricks, J.A., Blumenfeld, P.C., & Paris, A.H. (2004). School Engagement: Potential of the Concept, State of the Evidence. *Review of Educational Research*, 74(1), 59–109. <https://doi.org/10.3102/00346543074001059>
- Hu, L.T., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>



- Hunter, J.A., Abraham, E.H., Hunter, A.G., Goldberg, L.C., & Eastwood, J.D. (2016). Personality and boredom proneness in the prediction of creativity and curiosity. *Thinking Skills and Creativity*, 22, 48–57. <https://doi.org/10.1016/j.tsc.2016.08.002>
- Kang, X., & Wu, Y. (2021). Investigating the linkage between school psychological capital and achievement emotions in secondary school mathematics. *The Asia-Pacific Education Researcher*. <https://doi.org/10.1007/s40299-021-00623-4>
- Kang, X., & Wu, Y. (2022). Academic enjoyment, behavioral engagement, self-concept, organizational strategy and achievement in EFL setting: A multiple mediation analysis. *PLoS ONE*, 17(4), e0267405. <https://doi.org/10.1371/journal.pone.0267405>
- Kang, X., Wu, Y., & Li, L. (2021). Validation and prediction of the school psychological capital among Chinese college students. *Frontiers in Psychology*, 12, 1–11. <https://doi.org/10.3389/fpsyg.2021.697703>
- Kessels, U., Heyder, A., Latsch, M., & Hannover, B. (2014). How gender differences in academic engagement relate to students' gender identity. *Educational Research*, 56(2), 220–229. <https://doi.org/10.1080/00131881.2014.898916>
- Kruk, M., Pawlak, M., & Zawodniak, J. (2021). Another look at boredom in language instruction: The role of the predictable and the unexpected. *Studies in Second Language Learning and Teaching*, 11(1), 15–40. <https://doi.org/10.14746/sslit.2021.11.1.2>
- Lee, J.S. (2014). The relationship between student engagement and academic performance: Is it a myth or reality?. *The Journal of Educational Research*, 107(3), 177–185. <https://doi.org/10.1080/00220671.2013.807491>
- Lei, H., Cui, Y., & Zhou, W. (2018). Relationships between student engagement and academic achievement: A meta-analysis. *Social Behavior and Personality: an international journal*, 46(3), 517–528. <https://doi.org/10.2224/sbp.7054>
- Li, C., & Li, W. (2022). Anxiety, enjoyment, and boredom in language learning amongst junior secondary students in rural China: How do they contribute to L2 achievement?. *Studies in Second Language Acquisition*, 1–16. <https://doi.org/10.1017/s0272263122000031>
- Li, C., Dewaele, J.M., & Hu, Y. (2021). Foreign language learning boredom: Conceptualization and measurement. *Applied Linguistics Review*, 1–27. <https://doi.org/10.1515/applirev-2020-0124>
- Li, C., Dewaele, J.M., & Jiang, G. (2020). The complex relationship between classroom emotions and EFL achievement in China. *Applied Linguistics Review*, 11(3), 485–510. <https://doi.org/10.1515/applirev-2018-0043>
- Li, S., & Lajoie, S.P. (2021). Cognitive engagement in self-regulated learning: An integrative model. *European Journal of Psychology of Education*. <https://doi.org/10.1007/s10212-021-00565-x>
- Macklem, G.L. (2018). *Boredom in the classroom: Addressing student motivation, self-regulation, and engagement in learning*. Springer.
- Martínez, I.M., Youssef-Morgan, C.M., Chambel, M.J., & Marques-Pinto, A. (2019). Antecedents of academic performance of university students: Academic engagement and psychological capital resources. *Educational Psychology*, 39(8), 1047–1067. <https://doi.org/10.1080/01443410.2019.1623382>
- Muthén, L. K., & Muthén, B. O. (1998-2012). *Mplus User's Guide: Statistical Analysis with Latent Variables* (7th ed.). Los Angeles, CA.
- Pawlak, M., Kruk, M., Zawodniak, J., & Pasikowski, S. (2020). Investigating factors responsible for boredom in English classes: The case of advanced learners. *System*, 91, 1–10. <https://doi.org/10.1016/j.system.2020.102259>
- Pekrun, R. (2006). The Control-Value Theory of Achievement Emotions: Assumptions, Corollaries, and Implications for Educational Research and Practice. *Educational Psychology Review*, 18, 315–341. <https://doi.org/10.1007/s10648-006-9029-9>
- Pekrun, R., & Stephens, E.J. (2010). Achievement emotions: A control-value approach. *Social and Personality Psychology Compass*, 4(4), 238–255. <https://doi.org/10.1111/j.1751-9004.2010.00259.x>



- Pekrun, R., Frenzel, A.C., Goetz, T., & Perry, R.P. (2007). The Control-Value Theory of Achievement Emotions: An Integrative Approach to Emotions in Education. *Emotion in Education*, 13-36. <https://doi.org/10.1016/B978-012372545-5/50003-4>
- Pekrun, R., Goetz, T., Frenzel, A.C., Barchfeld, P., & Perry, R.P. (2011). Measuring emotions in students' learning and performance: The Achievement Emotions Questionnaire (AEQ). *Contemporary Educational Psychology*, 36(1), 36–48. <https://doi.org/10.1016/j.cedpsych.2010.10.002>
- Pekrun, R., Hall, N.C., Goetz, T., & Perry, R.P. (2014). Boredom and academic achievement: Testing a model of reciprocal causation. *Journal of Educational Psychology*, 106(3), 696–710. <https://doi.org/10.1037/a0036006>
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., & Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Preckel, F., Gotz, T., & Frenzel, A. (2010). Ability grouping of gifted students: Effects on academic self-concept and boredom. *British Journal of Educational Psychology*, 80(3), 451–472. <https://doi.org/10.1348/000709909X480716>
- Putwain, D.W., Schmitz, E.A., Wood, P., & Pekrun, R. (2021). The role of achievement emotions in primary school mathematics: Control-value antecedents and achievement outcomes. *British Journal of Educational Psychology*, 91(1), 347–367. <https://doi.org/10.1111/bjep.12367>
- Reeve, J. (2013). How students create motivationally supportive learning environments for themselves: The concept of agentic engagement. *Journal of Educational Psychology*, 105(3), 579–595. <https://doi.org/10.1037/a0032690>
- Shao, K., Pekrun, R., Marsh, H.W., & Loderer, K. (2020). Control-value appraisals, achievement emotions, and foreign language performance: A latent interaction analysis. *Learning and Instruction*, 69, 101356. <https://doi.org/10.1016/j.learninstruc.2020.101356>
- Sharp, J.G., Sharp, J.C., & Young, E. (2020). Academic boredom, engagement and the achievement of undergraduate students at university: A review and synthesis of relevant literature. *Research Papers in Education*, 35(2), 144–184. <https://doi.org/10.1080/02671522.2018.1536891>
- Sinatra, G.M., Heddy, B.C., & Lombardi, D. (2015). The Challenges of Defining and Measuring Student Engagement in Science. *Educational Psychologist*, 50(1), 1–13. <https://doi.org/10.1080/00461520.2014.1002924>
- Skinner, E.A., Kindermann, T.A., & Furrer, C.J. (2009). A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and Psychological Measurement*, 69(3), 493–525. <https://doi.org/10.1177/0013164408323233>
- Tze, V.M.C., Daniels, L.M., & Klassen, R.M. (2016). Evaluating the Relationship Between Boredom and Academic Outcomes: A Meta-Analysis. *Educational Psychology Review*, 28(1), 119–144. <https://doi.org/10.1007/s10648-015-9301-y>
- Tze, V.M.C., Klassen, R.M., & Daniels, L.M. (2014). Patterns of boredom and its relationship with perceived autonomy support and engagement. *Contemporary Educational Psychology*, 39(3), 175–187. <https://doi.org/10.1016/j.cedpsych.2014.05.001>
- Xie, J. (2021). The effects of boredom on EFL learners' engagement. *Frontiers in Psychology*, 12, 10–13. <https://doi.org/10.3389/fpsyg.2021.743313>
- Zawodniak, J., & Kruk, M. (2018). Boredom in practical English language classes: Insights from interview data. *Interdisciplinary views on the English language, literature and culture*, University of Zielona Góra, Poland, 177–191.
- Zawodniak, J., Kruk, M., & Chumas, J. (2017). Towards conceptualizing boredom as an emotion in the EFL academic context. *Konin Language Studies*, 5(4), 425–441. <https://doi.org/10.30438/ksj.2017.5.4.3>



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