

Study of the Relationship among College English Learners' Classroom Environment, Foreign Language Enjoyment and Learning Engagement in Western China

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Abstract: In order to explore the overall relationship among classroom environment, foreign language enjoyment and learning engagement in college English learning, and to make up for the lack of integrated analysis of the three in existing research, this research uses data from a questionnaire survey of 200 college students learning English in Western China. The analysis shows that learners' classroom environment, foreign language enjoyment and learning engagement are at an upper middle level. Classroom environment significantly positively predicts learning engagement, especially behavioral engagement. Foreign language enjoyment plays a partial mediating role between the two. The classroom environment has a stronger direct impact on learning engagement than existing research.

Keywords: Classroom Environment, Foreign Language Enjoyment, Learning Engagement.

1. Introduction

In the field of second language acquisition research, the rise of positive psychology has gradually shifted foreign language learning research from the traditional cognitive perspective to focus on foreign language learners' emotional experience, learning environment, and learning behavior. Seligman proposed positive psychology to enhance well-being through the development of individual positive qualities, which provides a new perspective on foreign language education. However, foreign language education in China has long attached importance to language skills training and cognitive development, and emotional factors have been neglected for a long time[18], resulting in learners' emotional experience and environmental interaction not being fully paid attention to. As the core learning field that learners have the most direct contact with[12], the perceived quality of the classroom environment profoundly affects learning engagement through emotional mediation. Existing studies have shown that college English learners generally have problems such as insufficient agentic engagement and significant anxiety[15], while traditional teaching does not pay enough attention to the synergistic effect of environmental factors and learner emotions. Learning engagement is a comprehensive measure of learning quality, which can have positive impact on academic performance and demonstrate students' behavioral, cognitive, and emotional efforts to learn. This engagement is both a manifestation of an efficient learning process and a sign of ideal learning outcomes[3]. In the process of learning a foreign language, learning engagement plays a very important role in the learner's mastery of foreign language skills. However, the existing research focuses on the study of relationship between classroom environment and learning engagement, and the relationship between foreign language learners' emotions and learning engagement, and does not combine the classroom environment with foreign language learners' emotions to explore the relationship between the two on learning engagement.

Therefore, this study aims to systematically explore the independent and synergistic effects of classroom environment

and foreign language enjoyment on learning engagement, in order to provide empirical evidence for optimizing the foreign language teaching environment and improving learners' positive experience and engagement.

2. Literature Review

2.1. Learning Engagement

Learning engagement refers to the level of effort, concentration, and engagement shown by students in the learning process, including cognitive, emotional, and behavioral engagement in learning tasks. Behavioral engagement refers to the specific behaviors exhibited by students in learning activities, such as participating in class discussions, finishing homework, and participating in extracurricular activities. Emotional engagement refers to the emotional experiences generated by students in the learning process, such as interest, enjoyment, anxiety and stress. Cognitive engagement refers to the thinking and understanding that students invest in the learning process, such as concentration, deep thinking, and the application of learning strategies. Learning engagement not only affects students' learning performance, but also has an important impact on students' learning experience and long-term development.

In the field of second language acquisition, researchers mainly focus on the composition and measurement of learning engagement, influencing factors, dynamics and development patterns, etc., while few research pay attention to the classroom environment and learning engagement. Some research further confirms that behavioral engagement, cognitive engagement, and emotional engagement are the basic dimensions of learning engagement, and found that it is influenced by teacher support[11], classroom environment[9], and learner emotions in foreign language learning[15]. However, there are few studies on the integration of classroom environment, foreign language enjoyment, and learning engagement, especially the lack of empirical testing for college English learners.

2.2. Classroom Environment

The classroom environment refers to the perception or feelings of students or teachers about their class or classroom, and it is a potential factor in determining student development [1]. The classroom environment generally includes the physical environment and the human environment. The human environment refers to the social and psychological environment in the classroom created by teachers and students. The classroom environment in this study specifically refers to the learner's psychosocial environment.

At present, the research on the classroom environment mainly focuses on the relationship between learning engagement, academic performance and academic emotions. The results show that there is a significant positive correlation between the perception of the classroom environment and learning engagement, and that the classroom environment and its dimensions have a positive predictive effect on learning engagement. The highly positive classroom environment (i.e., high relevance-low difficulty-high suitability-moderate support) has a significant positive impact on students' course engagement, personal performance, and confidence in future tasks[10]. A positive classroom environment indirectly improves students' English academic performance by promoting positive academic emotions, and negative emotions such as anxiety and boredom have a negative impact on academic performance[17]. However, existing studies lack attention to the specific group of college English learners, and ignore the specific discussion of foreign language enjoyment, which is the core positive emotion of foreign language learning.

2.3. Foreign Language Enjoyment

Foreign Language Enjoyment (FLE) refers to the positive emotional experience that learners feel during the process of learning a foreign language, usually stemming from interest in learning a foreign language, a sense of accomplishment, satisfaction from improving language skills, and fun and enjoyment in the learning process[6]. Foreign language enjoyment includes not only interest in language learning itself, but also positive emotional experience of language culture, communication and interaction.

With the deepening of foreign language learning and research, emotional factors in the learning process have received increasing attention. Among them, foreign language enjoyment, as a key positive emotion, has been proven to have a significant impact on learners' learning motivation, learning engagement and final foreign language scores. Specifically, foreign language enjoyment plays a significant role in promoting learning engagement, while excessive enjoyment or anxiety can have negative effects [13]. Other studies have further shed light on the complexity of the mechanisms of enjoyment in foreign languages. Foreign language enjoyment not only directly affects learning results, but also indirectly affects grades through a variety of paths. The moderated mediation model constructed by Dong Lianqi[8] shows that foreign language enjoyment not only directly and positively predicts foreign language performance, but also indirectly predicts performance through the mediating effect of "foreign language use" and "expected motivation" respectively. Simultaneously, empirical evidence indicates that the function of Foreign Language Enjoyment (FLE) is moderated by contextual variables. For instance, Song[15] identified FLE as a mediator across varying levels of social support. Further, Cui[7] established significant positive correlations

between learners' self-efficacy and both FLE intensity and language proficiency. While these findings underscore FLE's multifaceted mechanisms and pedagogical significance, extant research has yet to systematically examine its interplay with classroom environmental factors.

Given the critical role of learning engagement (LE), classroom environment (CE), and foreign language enjoyment (FLE) in second language acquisition, there is a compelling need to investigate these constructs within China's tertiary foreign language education context. Such research will provide educators with evidence-based insights for optimizing instructional interventions. Furthermore, while extant studies have established pairwise correlations among perceived classroom environment, FLE, and LE, the tripartite relationship-particularly FLE's potential mediating role between CE and LE-remains underexplored. To address these gaps, this study examines:

(1) What are the current levels and characteristic profiles of CE, FLE, and LE among Chinese college English learners?

(2) How do CE dimensions influence LE, and is this relationship mediated by FLE?

3. Research Design

3.1. Research Participants

Non-English majors constitute the primary demographic of college English learners in China. Unlike their English-major counterparts, they rely predominantly on formal classroom instruction for language acquisition due to limited extracurricular exposure. This study specifically focuses on undergraduate non-English majors (freshmen to juniors) at Guilin University of Technology in Western China. This cohort represents learners navigating critical transitional phases: freshmen adapting to tertiary education and sophomores/juniors consolidating linguistic competencies.

The selection of Western China as the research context is strategically motivated. Firstly, western universities face distinct educational challenges, including resource constraints and multicultural classroom dynamics, which may uniquely shape CE-FLE-LE interactions. Secondly, findings will inform "Western Development Strategy" initiatives by identifying actionable levers for improving EFL outcomes in underserved regions. Finally, prior studies on classroom environment effects concentrate on eastern or urban institutions, neglecting regional socioeconomic moderators prevalent in Western China.

3.2. Research Instruments

3.2.1. Learning Engagement Scale

The learning engagement construct was measured using an adapted version of the Learning Engagement Scale[4]. The original 25-item scale encompasses four dimensions: behavioral, emotional, cognitive, and agentic engagement. To avoid conceptual overlap with the Foreign Language Enjoyment (FLE) scale and maintain focus on core classroom processes, modifications were implemented following methodological guidance (Fredricks et al., 2004): The agentic dimension was integrated into behavioral engagement (e.g., "I actively ask questions" recategorized as behavioral). All FLE-related emotional items were excluded: A global item ("Overall, I am fully engaged in the English classroom") was added. This yielded a 9-item tripartite scale (behavioral, emotional, cognitive) measured on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Psychometric

analysis revealed strong reliability: subscale α : 0.736 (behavioral) to 0.881 (cognitive), total scale α = 0.928, confirmatory Factor Analysis (CFA) supported the 3-factor structure (CFI = 0.93, RMSEA = 0.06).

3.2.2. Classroom Environment Scale

The classroom environment was assessed using a modified version of the College and University English Classroom Environment Inventory (CUECEI)[16], which includes 9 dimensions such as student cohesiveness, teacher support, and classroom participation, with a total of 70 items. In order to improve the efficiency of questionnaire filling, the scale was appropriately deleted in this study. When deleting, priority was given to the dimensions directly related to foreign language enjoyment and learning engagement. The questions of peer relationship were merged into the dimensions of classroom participation and student responsibility. Finally, the five dimensions of teacher support, classroom participation, task orientation, student responsibility and teacher innovation were retained. The number of questions was reduced to 20. The questionnaire is also scored on a five-point Likert scale, ranging from “almost never” (1 point) to “almost always” (5 points). The Cronbach’s α of each dimension of the questionnaire were between 0.684 and 0.909, and the Cronbach’s α of the total scale was 0.937, indicating that the questionnaire had good reliability.

3.2.3. Foreign Language Enjoyment Scale

This study uses the Chinese version of the foreign language enjoyment Scale by Li et al.[2], including 11 items in three dimensions: FLE-Private, FLE-Teacher, and FLE-Atmosphere. The questionnaire is scored on a five-point Likert scale from “completely disagree” (1 point) to “completely agree” (5 points). The Cronbach’s α of each dimension of the questionnaire were between 0.826 and 0.927, and the Cronbach’s α of the total scale was 0.936, indicating that the questionnaire had good reliability.

3.3. Data Collection and Analysis

Questionnaires were distributed online in June 2025. In the end, 200 valid data were recovered, with an effective recovery rate of 93.02%. Firstly, descriptive statistics (including normal distribution test) and Pearson correlation analysis were carried out to explore the overall situation of college students’ classroom environment, foreign language enjoyment and learning engagement, and the correlation between various variables. Finally, the PROCESS macro for SPSS is used to test the mediating effect and moderating effect.

4. Results and Discussion

4.1. Analysis of Results

4.1.1. The Overall Situation of Classroom Environment, Foreign Language Enjoyment and Learning Engagement

The absolute value of skewness is less than 3 and the

absolute value of kurtosis is less than 10 in all dimensions of the three constructs, illustrating normal distribution. Descriptive statistical analysis showed that the classroom environment of college English learners (M=3.689, SD=0.680) was at an upper moderate level, and the results of each dimension were as follows: teacher support (M=3.600, SD=0.763), classroom participation (M=3.479, SD=0.832), task orientation (M=3.900, SD=0.825), student responsibility (M=3.595, SD=0.784), and teacher innovation (M=3.820, SD=0.869) The overall mean Learning engagement was M=3.831 (SD=0.725), of which behavioral engagement was M=3.738 (SD=0.772); emotional engagement M=3.968 (SD=0.855); cognitive engagement was M=3.832 (SD=0.770), both at a high level. At the same time, the overall mean of FLE was 3.740, SD=0.770, which meant learners experienced more pleasant emotions during the learning process of foreign languages.

4.1.2. The Correlation between Classroom Environment, Foreign Language Enjoyment, and Learning Engagement

The results of Pearson correlation analysis (Table 1) show that the classroom environment of college English learners is significantly positively correlated with learning engagement and foreign language enjoyment, and the correlation with learning engagement is stronger. Similarly, learning engagement is significantly positively correlated with foreign language pleasure.

Table 1. Matrix of Classroom Environment, Foreign Language Enjoyment, and Learning Engagement

Dimension	Classroom Environment	Learning Engagement	FLE
Classroom environment	1	0.869**	0.793**
Learning Engagement	0.869**	1	0.820**
FLE	0.793**	0.820**	1

(1) The Predictive Effect of the Classroom Environment on Learning Engagement

The standardized classroom environment was used as the predictor variable, and the learning engagement and its sub-dimensions were used as the outcome variables for regression analysis (Table 2). The results show that the classroom environment can significantly positively predict the overall learning engagement and all its subdimensions. Specifically, the predictive effect of the classroom environment on the sub-dimension of learning engagement is behavioral engagement, emotional engagement, and cognitive engagement in descending order from strong to weak. The multicollinearity diagnosis showed that all tolerances=1 and VIF=1, indicating that there was no collinearity problem, and the 95% confidence interval did not cross 0, which further verified the robustness of the model.

Table 2. The Results of Regression Analysis of Learning Engagement in the Classroom Environment

	R	R ²	F	β	t	95% Confidence Interval	Tolerance	VIF
Learning Engagement	0.869	0.755	610.66	0.869	24.71***	[0.852, 1]	1	1
Behavioral Engagement	0.840	0.706	475.65	0.840	21.81***	[0.764, 0.916]	1	1
Emotional Engagement	0.770	0.593	288.42	0.770	16.98***	[0.681, 0.859]	1	1
Cognitive Engagement	0.763	0.583	276.37	0.763	16.62***	[0.673, 0.854]	1	1

** means $p < 0.01$, *** means $P < 0.001$

(2) The Role of Foreign Language Enjoyment in the Classroom Environment and Learning Engagement

In this study, the PROCESS macro (Model 4) for SPSS was used to test the Bootstrap method (5000 sampling, 95% confidence interval). The mediating effect of foreign language enjoyment on classroom environment and learning engagement was analyzed under the control of gender and grade level. The results showed that the classroom environment had a significant direct positive impact on learning engagement ($\beta = 0.872, p < 0.001$). It had a significant positive predictive effect on foreign language enjoyment ($\beta = 0.794, p < .001$). After the foreign language enjoyment mediating variables were entered, the coefficients of the model fit well ($R^2=0.81, F=208.09, p < 0.001$), and the

influence of the classroom environment on learning engagement was significantly reduced ($\beta =0.593, p < 0.001$), but it was still at a significant level. Foreign language enjoyment ($\beta =0.353, p < .001$) still had a significant effect on learning engagement.

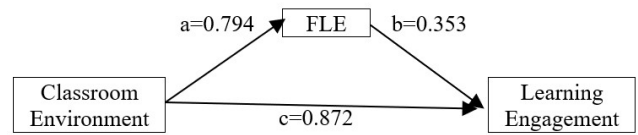


Figure 1. A Model of the Mediating Effect between Classroom Environment and Foreign Language Enjoyment between Learning Engagement

Table 3. Regression Analysis of Variable Relationships in Mediation Models

Outcome Variables	Predictor Variable	Model Summary			Model	
		R	R ²	F	Coefficient	t
FLE	Classroom Environment	0.793	0.629	336.296***	0.793***	18.338***
Learning Engagement	Classroom Environment	0.895	0.801	369.734***	0.590***	11.296***
	FLE				0.352	6.747
Learning Engagement	Classroom Environment	0.872	0.764	211.734***	0.872***	25.134***

** means $p < 0.01$, *** means $P < 0.001$

Table 4. Mediation Effect Test Based on Bootstrap Method

Effect	Effect Value	Proportion of Effects	BootSE	95%BootCI
Indirect Effect	0.279	32.11%	0.051	[0.178, 0.383]
Direct Effect	0.590	67.89%	0.052	[0.487, 0.693]
Total Effect	0.869		0.035	[0.800, 0.938]

The above analysis shows that the classroom environment can not only directly predict learning engagement, but also have an indirect impact on learning engagement through the mediating effect of enjoyment. As shown in the figure, specifically, the mediating effect value of the “classroom environment→foreign language enjoyment→learning engagement” path was 0.279 (32.11% of the effect), and the 95% confidence interval of the mediation path did not cross 0, indicating that the mediating effect reached a significant level, which showed that foreign language pleasure played a mediating role between the two.

4.2. Discussion

This study found that the overall classroom environment of college English learners was above average, with the highest score of task orientation and teacher innovation, while classroom participation was relatively low. This result is consistent with the research of Fang Benqi[9], indicating that students have a high degree of recognition of the goal of classroom tasks and teachers’ teaching innovation, but still lack of active participation in classroom interaction. This may be related to the “teacher-led, student-passive” teaching model in China’s traditional foreign language classrooms[18], where students can perceive the value of classroom tasks but lack the awareness and opportunity to actively express themselves. The overall level of foreign language enjoyment is above average, indicating that positive emotions are prevalent in college English learning. This is consistent with the view of Dewaele and MacIntyre[5] that “foreign language enjoyment is the core positive emotion of language learning”, and also confirms the finding of Li Chengchen et al.[2] that

Chinese learners can experience significant enjoyment in foreign language learning. The overall level of learning engagement is high, with the highest score of emotional engagement. This is different from the “weak emotional engagement” found by Song Hongbo et al.[15], which may be because this study focuses on the immediate interactive scenario of the classroom environment, and students are more likely to have positive emotional experiences in teachers’ innovatively designed and clearly task-oriented classrooms.

This study also found that the classroom environment can significantly positively predict learning engagement, with the strongest predictive power on behavioral engagement, which is higher than the direct effect of social support on learning engagement in Song et al.[15]. The reason may be that the classroom environment is a “microsystem” for learners’ immediate interaction[1], and its physical and human characteristics directly shape learning behavior: teacher support provides emotional security, task orientation clarifies learning goals, and classroom participation creates practical opportunities, all of which together constitute the “environmental dynamic system” that drives learning engagement. In particular, the “teacher innovation” dimension stimulates students’ willingness to participate in behavior through novel teaching activities, which is close to the conclusion of “positive classroom environment promotes engagement through behavioral activation” proposed by Wei Xiaobao[17].

Finally, this study reveals the mediating role of foreign language enjoyment in the classroom environment and learning engagement. The classroom environment not only directly affects learning engagement, but also indirectly promotes engagement by enhancing foreign language enjoyment. When students feel a higher level of classroom environment support, students will enhance their “sense of control” and “value” of learning, which will lead to happy emotions. As a “psychological resource” [8], pleasure will promote students to actively participate in behavior and think more deeply in cognition. Compared with the “social support influences engagement through enjoyment mediation” found by Song Hongbo et al.[15], the mediating effect in this study is lower, indicating that the classroom environment, as a more

specific situational variable, has a more direct impact on engagement, while the indirect effect of emotion is relatively weak.

5. Conclusion

The purpose of this study is to explore the relationship among classroom environment, foreign language enjoyment and learning engagement in the process of college students' English learning, reveal the potential mechanism of the influence of classroom environment on college students' English learning engagement, and verify the positive predictive effect of classroom environment on learning engagement, as well as the partial mediating role of foreign language enjoyment between classroom environment and learning engagement. As an external environmental factor, the classroom environment can not only promote students' more positive cognitive behavior, but also help students build more psychological resources such as self-confidence and optimism, thereby promoting students' absorption of language engagement. The results of this study can provide important references for second language acquisition and teaching.

Based on the conclusions drawn from this study, in future teaching activities, teachers can first strengthen the goal and challenge of language tasks, and innovate teaching methods, such as combining AI tools to design immersive dialogue situations to enhance the attractiveness of the classroom environment. Secondly, teachers can establish an "instant feedback" mechanism, and give specific affirmations to students' classroom performance. By implementing collaborative activities that foster a positive classroom atmosphere, instructors can catalyze the transformation of emotional engagement into behavioral engagement. Subsequently, granting students task-selection autonomy enhances their sense of learning responsibility.

There are two limitations in this study: first, the sample is only from a single university, which may affect the universality of the results; secondly, negative emotions such as anxiety and boredom are not included, so it is difficult to fully reveal the role of the emotional system. Future research can expand the sample scope and integrate positive and negative emotions to build a more complete "environment-emotion-engagement" model.

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