

Investigating the Interplay between L2 Grit and English Proficiency among College Students

Yue Feng*

School of Foreign Languages and Cultures, Geely University of China, Chengdu, China
fengyue_guc@163.com

*Corresponding author

Abstract: The effect of positive psychology on language learning has attracted considerable interest. In this context, this study adopted a quantitative research method to examine college English learners' grit in English learning and its relationship with learners' English proficiency. Participants were 209 college students from a university in southwest China. The results showed that students had a moderate level of grit and English proficiency. Further analysis indicated significant and strong correlations between perseverance of efforts (POE), consistency of interest (COI), and English proficiency. This suggests that grittier students tended to achieve better learning results. The analysis also revealed that POE, rather than COI, served as a significant predictor of learners' English proficiency. This research enlightens English pedagogy in the Chinese context.

Keywords: L2 Grit, English Proficiency, College English Learners

1. Introduction

Positive psychology has seen a surge in popularity in recent years, with researchers shifting their focus from the study of negative elements to the exploration of positive elements in individual development. By focusing on what is right with people instead of what is wrong with them, positive psychology aims to enhance human potential, increase well-being, and foster human growth. This movement is driven by the pioneering research of Seligman and Csikszentmihalyi^[1]. In the field of education, positive psychology has started to make its mark, with researchers examining the role of positive qualities or traits in facilitating learning. Among the traits they have identified is grit, which refers to perseverance and tenacity in the face of challenges.

An increasing number of second language researchers have also begun to take notice of the positive role of positive emotions^[2]. Research on language learning is also gradually shifting its focus from negative emotions such as anxiety and fatigue to the exploration of positive emotions^[3]. However, a dearth of research has currently diagnosed the relationship between Chinese college students' English proficiency and grit, particularly. Therefore, this study aims to address this research lacuna.

2. Relevant Research

2.1. Concept of L2 Grit

Grit is defined as a unique individual quality that manifests itself as perseverance and passion towards learning objectives in the long term^[4]. This includes the ability to maintain effort and consistency of interests despite challenges or setbacks. The concept of grit extends beyond a personality trait to encompass an individual's ability to demonstrate resilience and a capacity for sustained energy investment in long-term tasks. Notably, perseverance of effort encompasses one's capacity for persistence even in the face of obstacles, while consistency of interests reflects a steadfast commitment towards personal aspirations. While research into the concept of grit remains in the infancy stage, and thus more work is warranted to understand the potential psychological mechanisms that underlie it, Duckworth et al.'s groundbreaking work on grit suggests that individuals who demonstrate high levels of grit engage in more deliberate practice and report greater experiences of flow^[4]. The nuanced mechanism of grit thus seems to be a complex, multifaceted process. Since the inception of the grit theory, researchers have not only examined the distinct components of individual grit but have also undertaken in-depth explorations into how grit operates within various domains and

contexts.

Several researchers have focused on the societal significance of grit within educational settings, viewing it as a social and emotional skill that plays a crucial role in student achievement. Duckworth and Quinn^[5] further assert that in predicting academic performance, grit is a construct as essential as talent. The finding that grit remains predictive of academic achievement even after accounting for individual ability highlights the importance of this concept.

In recognition of the significant influence of grit on academic achievement, researchers have sought to investigate its application within second language (L2) learning. This line of research began with Lake's^[6] study which examined how positive L2 self, motivation, and language proficiency interacted. However, the bulk of research on grit within the context of L2 acquisition emerged in 2017. Researchers have explored the intrinsic dimensions of grit in L2 learning, specifically focusing on learners' passion and perseverance towards their L2 studies. Most of the research conducted thus far references Duckworth et al.'s definition of grit^[4], with L2 grit being viewed as the manifestation of learners' passion and dedication towards L2 learning^[7-8].

2.2. L2 Grit and Language Proficiency

Within the milieu of L2 research, despite the consensus on the importance of grit in L2 learning, its impact on L2 performance/proficiency remains inconclusive and varies across empirical studies. Some research has substantiated a bidirectional predictive relationship between learners' grit and proficiency levels. Wei et al.^[9] revealed that grit served as a positive predictor of foreign language performance, and language proficiency is also an important predictor of L2 grit^[10]. Moreover, multiple studies have found that within the sub-dimensions of grit, perseverance in language learning significantly predicts students' language performance and self-perceived English proficiency, with a stronger effect than overall perseverance, while consistent interest is not a significant predictor^[8]. Sudina et al.^[11] further emphasizes that consistent interest is a negative predictor in the English-as-a-second-language (ESL) context.

Conversely, some studies have also shown a lack of correlation between grit and academic performance. A recent study conducted by Khajavy et al.^[12] found that grit may not always be directly linked to academic success. When examining the impact of grit and language mindsets on foreign language learning, it is suggested that L2 grit may be more effective for long-term language mastery compared to solely relying on a single semester of language courses^[12]. Additionally, conflicting findings have emerged within the same study. For example, the study conducted by Taspinar and Külekci^[13] found that there existed a significant and negative correlation between English proficiency and grit in graduate students, while the relationship was nonsignificant and positive in transfer students. Furthermore, researchers have explored the link between language proficiency and grit. For example, vocabulary mastery and grit were found to have an indirect relationship^[14]. Specifically, grit was found to predict future literacy gains in older primary schoolers with engagement playing an intermediary role^[15]. Also, perseverance was identified as a positive predictor of literacy achievement when not controlling for previous reading and writing ability^[16].

In conclusion, how L2 grit and language proficiency interact with each other is still unclear and warrants further investigation.

3. Research Methodology

3.1. Research Questions

In the current study, the researcher utilized a quantitative research method (questionnaire survey) to investigate the L2 grit of college EFL learners and its relationship with their English proficiency. There are three research questions to be answered in this study:

- (1) What is the level of L2 grit (i.e., POE and COI) among college EFL learners?
- (2) What is the correlation between L2 grit of EFL learners and their English proficiency?
- (3) Can L2 grit of EFL learners predict their English performance?

3.2. Sampling and Ethical Considerations

This study involved 209 second-year English major students from a comprehensive university in the southwest region of China, comprising 28 male and 181 female students aged from 18-21 years old (Average age=19.67, $SD=0.83$), with all participants having learned English for at least 10 years since elementary school.

To comply with ethical standards regarding human participants in research, a written consent form was designed for the students to complete before participating in the survey. Additionally, all participants were informed of the study's purpose and assured that the survey data would be used solely for academic research and not for commercial purposes. The researchers ensured that students had the option to withdraw from the study at any point in time, without it impacting their English grades.

3.3. Research Instrument

The main research tools utilized in this study were the *Grit Scale for Foreign Language Learners* adopted from Teimouri et al.'s *L2 Grit Scale*^[8] and the students' scores in the College English Test Band 4 (CET-4, with the highest possible score being 710). Employing the widely-used questionnaire survey method in educational research, standardized questionnaires were distributed to the participants, followed by the collection and organization of the completed questionnaires for statistical analysis to derive the study findings. Teimouri et al.'s scale was translated for analyzing the students' level of grit. The researcher personally undertook the translation of the scale into Chinese, and sought the input of relevant experts in the field to revise and adjust the contents of the Chinese version. The entire scale comprises two dimensions with a total of 9 items. The first dimension, *Perseverance of Effort*, consists of 5 items, with one sample statement being "I am a diligent English language learner". The second dimension, *Consistency of Interest*, includes 4 items, such as "I am not as interested in learning English as I used to be". The scale is scored using a 5-point scale (1=not like me at all, 5=very much like me) and its internal structure has been validated in the Chinese EFL contexts^[17]. The internal consistency reliability of the scale is acceptable (Cronbach's $\alpha = 0.836 > 0.7$). Consequently, the study will proceed with the analysis and discussion based on the two-factor construct of L2 grit.

3.4. Data Collection and Analysis

The researcher gathered the data in November, 2023 and this work lasted for a total of two consecutive weeks. The author utilized paper questionnaires as a primary tool for data collection in the classroom. The collected data was then manually entered into the data collection tool and each datum was assigned a unique code. The researcher then applied a set of standard operating procedures to analyze the entered data using the SPSS 23.0 statistical software. This process helped to ensure the data was accurately captured, codified, and analyzed.

4. Research Findings

To answer the three research questions, this study statistically processed and analyzed the data.

First, the study conducted a preliminary analysis of the collected data and found no missing data or outlier responses that would affect the reliability and validity of the findings. Furthermore, the skewness and kurtosis of the data ranged from -2 to +2 (see Table 1), indicating that the data were distributed in a normal fashion, without any obvious skewedness or kurtosis, thus ensuring that the findings were free from any statistical bias^[18]. To understand the basic characteristics of students' grit in L2 learning and their CET-4 scores, the study performed descriptive statistical analyses, calculating the range, maximum, minimum, mean, and standard deviation of the data. This procedure allowed the researchers to determine the range of values and the degree of dispersion in the data. Table 1 shows the participants' levels of perseverance of effort ($M=19.330$, $SD=3.627$), consistency of interest ($M=14.297$, $SD=2.679$), and English scores ($M=1485.667$, $SD=46.907$) were all at a moderate level, as indicated by the mean and standard deviation values.

Secondly, to examine the connection between English proficiency and both dimensions of learners' grit, bivariate correlations were run among POE, COI and CET scores. Table 2 shows that CET scores had strong and significant associations with both POE ($r=0.799$, $p<0.01$) and COI ($r=0.701$, $p<0.01$). Additionally, the two dimensions of grit were strongly linked to each other with statistical significance ($r=0.782$, $p<0.01$). These findings suggest that learners with higher levels of grit (namely, stronger

perseverance and passion in the process of learning English) are more likely to achieve higher English proficiency. It has also been demonstrated that learners who exhibit a tenacious commitment to mastering English display a robust and fervent interest in the language.

Table 1: Descriptive results

Variables	Descriptive Results						
	Range	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
POE	5-25	6	25	19.330	3.627	-0.077	0.085
COI	4-20	4	20	14.297	2.679	-0.507	0.771
CET Score	—	409	567	485.667	46.907	0.687	0.966

POE, perseverance of effort; COI, consistency of interest; SD, standard deviation.

Table 2: Bivariate correlations

Variables	Variables		
	POE	COI	CET Score
POE	1		
COI	0.782**	1	
CET Score	0.799**	0.701**	1

** $p < 0.01$.

The research employed the enter method of multiple regression analysis to determine the relationship that exists between the dependent variable, CET score, and two independent variables, POE and COI. After careful analysis, the researcher found that the tolerance values for POE and COI were 0.230 and 0.277 respectively, which indicated that there was no collinearity between these variables, and therefore no need to exclude any of the variables. The multiple regression analysis model was found to meet the criteria set forth by Pallant^[19] for normality, linearity, homoscedasticity, and independence. The model's residuals were also checked to ensure they did not contain any outliers. The results were presented in Table 3, which demonstrated a highly significant regression equation ($F=2739.449$, $p < 0.001$). This finding indicated that POE displayed a significant and positive prediction of learners' CET scores ($\beta_{\text{POE}}=0.467$, $p=0.000 < 0.01$), while the predictive effect of COI on CET scores was also positive but not significant ($\beta_{\text{COI}}=0.467$, $p=0.088 > 0.05$). When taken together, the two independent variables explained 57.3% of the variance in English proficiency (adjusted $R^2=0.573$), and POE acted as the determinant predictor of English proficiency. This was a consistent finding with previous research on the topic^[17].

Table 3: Results of predictive effects

Variables	B	SE	Beta	<i>t</i>	Sig.	Tolerance	VIF	F	Adjusted R ²
Constant	-15.653	4.365		-3.654	0.000			2739.449	0.573
POE	2.524	0.067	0.467	34.556	0.000	.230	4.348		
COI	0.228	0.069	0.336	2.307	0.088	.277	3.610		

SE, standard error; VIF, variance inflation factor.

5. Conclusion

This research conducted a quantitative exploration into the possible connection between L2 grit and language proficiency of Chinese college English learners, and significant findings were garnered. First, the participants displayed a moderate level of dedication to and an average interest in learning English, and their English proficiency was at an intermediate level. Second, learners' perseverance and passion in English learning were found to be strongly and positively linked to their English performance. Furthermore, L2 grit was found to be a strong predictor of learners' English grades, but only one dimension of grit, namely perseverance of effort, stood out as a significant predictor.

These findings suggest key implications for tertiary-level EFL pedagogy. In China, education at all levels remains heavily exam-oriented despite quality education initiatives. For instance, in the context of higher education English teaching, college English teachers focus heavily on helping their students pass the CET-4 and CET-6. Consequently, teachers often concentrate more on refining learners' test-taking skills, whilst disregarding their interest in and dedication to language learning. However, it is important to emphasize that language learning is a multifaceted and time-consuming process, where the cultivation of test-taking skills alone is insufficient to truly master a language. These research findings underline the value of effort investment and interest stimulation in English study, as the study

attributes a significant portion of the variance to the two dimensions of grit. Therefore, language teachers should motivate their students to persevere in their learning and ignite their passion for English.

While this research study has pedagogical implications, it also has several limitations. First, it was conducted with a small sample size of students from a university in southwest China. In this situation, the results obtained in this research work might not be generalized to other learner populations. Secondly, the research approach adopted was solely quantitative, potentially overlooking other key elements that could impact the interplay and interaction between the variables under investigation. Thirdly, the measurement of grit was through a cross-sectional questionnaire, and therefore any potential fluctuations of grit levels and language performance over time. That means, this research cannot accurately depict the intricate interconnection between grit and English performance. To obtain more robust research findings, research in this field should consider expanding the sample size, diversify the participants, employ a mixed research approach, and track learners' grit and language performance longitudinally.

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