

The Roles of Teacher-Student Rapport and Learner Autonomy of College Students' English Writing Self-Efficacy in China

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ABSTRACT

English Writing is a foundational course for Chinese college students across various academic disciplines. A variety of factors manipulate the efficiency and proficiency of students in English writing and ultimately maneuver their outcomes. This study employed a quantitative method, surveying 200 participants to evaluate the effect of teacher-student rapport and learner autonomy on students' English writing self-efficacy in China. The results revealed a positive correlation between students' English writing self-efficacy in China and both teacher-student rapport and learner autonomy. Additionally, the study identified learner autonomy as a mediating factor in the interplay between teacher-student rapport and English writing self-efficacy. Furthermore, the study also highlighted the overall higher perception of teacher-student rapport, learner autonomy, and self-efficacy among female students.

KEYWORDS

College English writing; Chinese college students; English writing self-efficacy; Teacher-student rapport; Learner autonomy

1 Introduction

Writing is a multifaceted endeavor that demands a constant clear mind, critical thinking, a strong command of grammar and vocabulary, and sophisticated use of rhetorical devices. Investigating the influencing factors of writing efficacy in the context of Chinese English instruction is crucial for identifying areas that require improvements and rectification.

Successful education is a complex and dynamic process, encompassing various elements such as a supportive learning environment, effective teaching methods, and motivational tools for English learners.

Consequently, this study examines the effects of teacher-student rapport and learner autonomy on the learners' self-efficacy in the compulsory College English Writing course. By exploring these impacts, valuable insights to enhance teaching and learning in this domain can be attained.

2 Literature Review

Frank Pajares defines writing self-efficacy as the subjective perception and evaluation of students' ability to complete different writing tasks with relevant writing knowledge and skills ^[1]. This concept aligns with the three elements of writing self-efficacy proposed by Roger Bruning et al.

^[2], including writing concept, writing routine, and writing self-regulation. Patricia McCarthy et al. constructed a model between self-efficacy and students' academic performance through empirical research ^[3], which established the positive correlation between the two elements, which further supports the significance of writing self-efficacy in student success.

Brandi Frisby and Matthew Martin emphasize that the teacher-student relationship is the overall feeling of the bond of mutual trust between teachers and students ^[4]. An important aspect of successful education is to develop a positive and mutually supportive relationship between teachers and students ^[5]. Teachers play a vital role in elevating students' writing self-efficacy, including interactive teaching ^[6], cooperative assessment ^[7], and corrective feedback ^[8]. However, the specific impact of a positive teacher-student relationship on the writing self-efficacy of English learners is inconclusive and hence requires further exploration.

As defined by Henri Holec, learner autonomy refers to the capability of an individual to undertake responsibility for his learning process ^[9]. Learner autonomy not only improves the learners' language competence but also fosters a multi-perspective understanding of the world and the ability to make necessary changes. Students' self-dedication, awareness, and implementation of proper strategies ^[10], self-regulation ^[11], and self-evaluation ^[12] contribute to their writing self-efficacy. Therefore, an in-depth evaluation of the role of learner autonomy in the English writing self-efficacy of Chinese students is both an interesting and imperative matter.

3 Methodology

3.1 Participants

In this study, participants included 200 undergraduates within the age range from 18 to 28 (62 males, 127 females, 11 not reporting gender) from different majors and different universities in China ($M=21.5$, $SD=1$).

3.2 Materials

3.2.1 Brief teacher-student rapport scale

Janie Wilson and Rebecca Ryan updated the original concise version of the Teacher-student harmony scale, which includes six items ^[13]. The short version of the Teacher-student Harmony Scale requires participants to rate each item on a scale of 1 to 5. The higher the score of this index, the more harmonious the relationship between teacher and students reports. The Cronbach of the concise version=.83.

3.2.2 Learner Autonomy Scale

Macaskill A. and Taylor E. developed the Learner Autonomy Scale, a 12-item measure with two subscales to investigate students' levels of independence in the learning process, and the study habits of the students ^[14]. The responses of the participants to the 14 statements were reported by a Likert scale from 1 to 5, representing strongly disagree to strongly agree. The Cronbach's α of the Learner Autonomy Scale = .81.

3.2.3 EFL writing self-efficacy scale for Chinese college students

Li Hang developed the WSEC, an 18-item scale, with two components: foreign language writing skills efficacy, and writing task efficacy, each containing 9 questions ^[15]. Participants answered 18

questions from 1 to 5 according to the Richter magnitude, from strong opposition to strong agreement. Higher reporting scores indicate that the participants write more efficiently in English. Cronbach values for overall writing self-efficacy, writing skills, and writing task self-efficacy = 0.955, 0.929 and 0.933, respectively, with high internal consistency.

3.3 Data collection and analysis

After the session of the collection ended, 200 valid questionnaires were collected. The data underwent statistical analysis, reliability test, correlation test, and t-test regression analysis, using IBM SPSS Statistics version 23.0. and Hayes' s Model 4.

4 Results

4.1 Descriptive statistics of the study

Table 1 presents the descriptive statistics and correlation index and the internal consistency of all variables included in the study. In the final analysis, the mean score of teacher-student rapport is 3.708, the standard deviation is 0.725; the mean score of Learner autonomy equals 3.814, the standard deviation is 0.755; the mean score of self-efficacy is 3.594, and the standard deviation is 0.929. The data mentioned together indicates relatively high levels of positive teacher-student relationships, autonomous learning environment, as well as self-efficacy. The values of Cronbach' s A of teacher-student rapport, learner autonomy, and English writing self-efficacy of Chinese college students, equal 0.858, 0.943, and 0.955, indicating high internal consistency.

4.2 Correlations between teacher-student rapport, learner autonomy, and English writing self-efficacy of Chinese college students

The Pearson correlation analysis has implied the positive correlations among the three variables. According to Table 1, English writing self-efficacy is positively correlated with teacher-student rapport and learner autonomy, the values of Pearson correlations are 0.68, and 0.833 respectively ($p < 0.01$), indicating significant positive correlations. Thus, higher levels of teacher-student rapport and learner autonomy predict higher levels of self-efficacy.

4.3 Difference analysis of the independent and dependent factors on the scale of gender

Table 2 demonstrates the differences in teacher-student rapport and learner autonomy, the two independent factors, and self-efficacy, the dependent factor, on the scale of gender. Female students generally report higher levels of teacher-student rapport, learner autonomy, and self-efficacy, than male students ($p > 0.01$).

4.4 Teacher-student rapport, learner autonomy, as predictors of English writing self-efficacy of Chinese college students

The regression analysis in Table 3 shows that the relationship between teachers and students is positively correlated with China college students' English writing self-efficacy ($\beta = 0.689$, $t > 2$), and learner autonomy is positively correlated with China college students' English writing self-efficacy ($\beta = 0.0211$, $t > 2$). These two variables account for 68.95%, 21.1%, and 71.5% of the

variation rate of self-efficacy respectively.

4.5 The examination of the mediating role of learner autonomy

The mediating role of learner autonomy between teacher-student rapport and self-efficacy was examined through Model 4 in SPSS by Andrew Hayes ^[16], in age-controlled and gender-controlled conditions. The results are shown in Tables 4 and 5, indicating that the teacher-student relationship significantly predicts self-efficacy ($t=13.0911$, $p<0.01$). After introducing autonomous learning, the teacher-student relationship still significantly predicts the self-efficacy ($t=4.1612$, $p<0.01$). The teacher-student relationship also significantly predicts learner autonomy ($t=12.9986$, $p<0.01$). In addition, autonomous learning remarkably predicts the self-efficacy of English writing among Chinese college students ($t=13.3195$, $p<0.01$). In addition, the teacher-student relationship has a direct mediating effect on the self-efficacy and learning autonomy of Chinese college students in English writing. It can be indicated that the teacher-student relationship can not only directly affect the self-efficacy of Chinese college students' English writing, but also significantly predict the latter through the Mesomeric effect of learner autonomy. The direct effect (0.2571) and intermediate effect (0.56) account for 31.46% and 68.64% of the total effect, respectively.

Table 1 Descriptive statistics, correlations, and internal consistency reliability among all study variables

Variables	Mean/N	SD/%	1	2	3	4	5	Cronbach's α
1. Sex			1.000	-.044	.042	.028	-.012	
Male	62	31%						
Female	127	63.5%						
Not Revealing	11	5.5%						
2. Age	21.5	1		1.000	.015	-.010		-.044
3. TSR	3.2925	.6716			1.000	.680**	.680**	.805
4. LA	3.5717	.7214				1.000	.833**	.916
5. EWSECCS	3.7167	.8035					1.000	.972

$P^{**}<0.01$

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

TSR=Teacher-Student Rapport; LA=Learner Autonomy; EWSECCS=English Writing Self-Efficacy of Chinese College Students; SD= Standard Deviation.

Table 2 Difference Analysis of the Independent and Dependent Factors on the Scale of Gender

Variables	Gender	M $\pm$ SD	t	p
TSR	male	3.2473 $\pm$ 0.6506	-0.647	0.260
	female	3.3123 $\pm$ 0.6462		
LA	male	3.4180 $\pm$ 0.7025	-2.217	0.018
	female	3.6450 $\pm$ 0.6596		
EWSECCS	male	3.6559 $\pm$ 0.7585	-1.084	0.140
	female	3.7843 $\pm$ 0.7773		

TSR=Teacher-Student Rapport; LA=Learner Autonomy; EWSECCS=English Writing Self-Efficacy of Chinese College Students; SD= Standard Deviation.

Table 3 Regression Analysis of Teacher-Student Rapport, Learner Autonomy, and English Writing Self-Efficacy of Chinese College Students

Dependent variable	Independent variables	beta	t	R ²	F
EWSECCS	TSR	0.689	13.343	0.715	250.555
	LA	0.211	4.093		

TSR=Teacher-Student Rapport; LA=Learner Autonomy; EWSECCS=English Writing Self-Efficacy of Chinese College Students.

Table 4 Model Test of the Mediating Effects of Learner Autonomy

	EWSECCS		EWSECCS		LA	
	t	p	t	p	t	p
gender	-1.1156	0.2660	-0.8289	0.4081	-0.0284	0.9774
age	-1.1248	0.2620	-1.0812	0.2809	-0.3838	0.7016
TSR	4.1612	0	13.0911	0	12.9986	0
LA	13.3195	0				
R ²	0.2477		0.2277		0.6464	
F	16.0483		19.2638		119.4119	

TSR=Teacher-Student Rapport; LA=Learner Autonomy; EWSECCS=English Writing Self-Efficacy of Chinese College Students.

Table 5 Table of Total Effect, Direct Effect, and Mediated Effect

	Effect	BootSE	BootLLCI	BootULCI	Effect ratio
LA	0.5600	0.0581	0.4463	0.6722	68.54%
Direct effect	0.2571	0.0766	0.1165	0.4158	31.46%
Total effect	0.8171	0.064	0.634	0.889	

TSR=Teacher-Student Rapport; LA=Learner Autonomy; EWSECCS=English Writing Self-Efficacy of Chinese College Students.

5 Conclusion

In conclusion, the findings of this study indicate a positive correlation between the self-efficacy of English writing among Chinese college students and both their teacher-student relationship and learner autonomy. The teacher-student relationship and learner autonomy significantly predict the English writing self-efficacy of college students in China ($p < 0.01$), with learner autonomy playing a mediating role.

Future research endeavors could expand on other factors that contribute to English writing self-efficacy among EFL students, such as the impact of procrastination, classroom environment, learning styles, and strategies. Additionally, it would be valuable to include participants from diverse cultural backgrounds in future studies to achieve a more comprehensive exploration of strategies to enhance the English writing self-efficacy of EFL students. By addressing these areas, a deeper understanding of the factors influencing English writing self-efficacy can be obtained, leading to the development of more effective interventions and instructional approaches in English language education.

Notes on contributors

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