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A Study on the Influence of Family and School Psychological Environment on Academic Self-Efficacy and Self-Identity of English Education Major University Students

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This study aims to identify the relationship between academic self-efficacy, self-identity of English education major students and psychological environment of their family and school. In order to improve their self-efficacy and self-identity, this study is to see the effect of the family and school psychological environment on self-efficacy and self-identity. In this study, 262 questionnaires completed by the English education major students in teacher training universities in Guangxi Zhuang Autonomous Region in China are used. Reliability, correlation, and regression analysis are performed by the SPSS25.0 program. This study found that there is no significant difference in family and school psychological environment, academic self-efficacy, self-identity by gender and academic year. However, students born in urban areas, students with higher family economic income, and students with better academic performance have higher levels of academic self-efficacy and self-identity, along with better family and school psychological environment. Students with siblings have better family psychological environment than students without siblings, but there is no difference in the academic self-efficacy, self-identity, and school psychological environment by the presence of siblings. This study found that family and school psychological environment are positively related to academic self-efficacy and self-identity of English education major university students. Compared with family psychological environment, school psychological environment is more influential on the academic self-efficacy of them. As the sub-dimensions of school psychological environment, peer support is more influential than teacher support. Compared with school psychological environment, family psychological environment is more influential on the self-identity of them. As the sub-dimensions of family psychological environment, family challenge is more influential than

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family support. Therefore, strengthening the role of peer support in schools is necessary. Family members should increase stimulation and support to challenge students toward their positive development.

Introduction

With the popularization of higher education in China, the increasing pressure of employment, the rapid development of economy and the continuous progress of modern information technology, contemporary university students have ushered in new growth opportunities and are facing more challenges at the same time. Some university students, due to the existence of inappropriate education in their upbringing, have developed wrong self-perception and self-evaluation of themselves, resulting in low levels of self-efficacy and problems such as the level of goal setting does not match their own situation, insufficient effort, poor persistence, decreased self-monitoring ability, lack of help-seeking behaviour, and the existence of psychological barriers (Li, 2014). Moreover, the great contrast between high school and university education patterns leads to students' inability to continue their high school learning patterns, therefore most students go from being confident when they first enter university to frequently skipping classes and missing classes later. The reason for this phenomenon lies in university students' reduced sense of self-identity and their inability to correctly perceive their learning status and methods (Hou, 2014). The emergence of these problems makes university students' academic performance unsatisfactory.

English, as an important subject for Chinese students, has long been of interest to the government and researchers. And so, a great deal of effort in studying English teaching methodology to help students learn English well has been invested. However, for English education major university students, in the complex learning process of the second language, the neglecting of the endogenous driving force leads to poor learning results (Gao, 2004). Ellis (2004) found that, despite the fact that second language learners shared the same native language, learning environment, and communicative needs, there were differences in the rate and degree of second language acquisition, and only a small percentage of second language learners approached the level of native speakers. In the 1970s, scholars (Carroll, 1963; Rubin, 1975; Stern, 1975) began to focus on the learning process of successful second language learners and found that, in addition to a certain degree of linguistic talent and positive motivation, learner factors such as linguistic ability, learning self-efficacy, learning strategies, and self-identity played an important role in predicting the academic achievement of second language learners (Dörnyei, 2005; Gao, 2004; McDonough, 2009; Wang, 2008; Wen, 2001).

As stated by Bandura (1982), academic self-efficacy, which refers to students' judgment of whether they can successfully complete learning tasks and achieve their expected learning goals, affects students' learning process and academic performance, which in turn affects academic achievement. Students' level of self-efficacy, especially in the learning environment, influences their choices of academic activities and their aspirations for future academic choices (Bandura, 1994). The formation of self-identity by an individual is a task encountered by every individual during the university years and is a conflict to be resolved in the process of personal development (Chang, 2011). In a study of English students, Ma (2005) stated that low-achieving students had lower self-identity and highly differences with other students, indicating that low-achieving students clearly lacked self-confidence and encouragement in English learning. Wang (2009) conducted a questionnaire survey on some students in three universities and found that students' English proficiency was positively correlated with self-identity. A correct self-perception can promote students' interest and

confidence in learning (Kong, 2005).

The sources of academic self-efficacy include the experience that individuals have mastered by participating in activities in their own environment, as well as individuals observing others performing tasks and forming beliefs about their own ability to perform the same or similar tasks (Bandura, 1994). Self-identity is also a way of self-perception and self-evaluation that individuals gradually develop through the verbal, motor, and psychological communication and interaction that exists between them and others in the social environment in which they find themselves (Grijalvo, Martin-Albo, Navarro & Nuiiez, 2007). Therefore, finding ways to improve the academic self-efficacy and self-identity of English majors requires a study of their environment. According to Ellis (1999), English majors' learning outcomes were largely influenced by the social environment in which they lived. Family and school, as the environment in personal growth and development, have a nurturing effect on English education major university students' academic self-efficacy and self-identity (Choe, 2014).

The psychological environment is the sum of various factors that influence people's behaviour through their ideology, and it works by gradually cognizing the objective environment through the interaction between the subject (the thinking activity of the human brain) and the object (the realistic field in which the individual is placed), forming an emotion based on the objective environment, and eventually influencing the individual's behaviour through this emotion (Li, 2018). The family psychological environment is the expectations and roles arising from the relationships or psychological interactions between family members; the mutual attitudes of members, the environment consisting of psychological variables such as the cohesion of the family (Zhang, 2002), the feelings and expectations between family members, including behaviour patterns, which also imply the family values, interpersonal relationships within the family, attitudes between family members, specific behavioural styles, moral level, and parenting attitudes of parents, family cohesion, etc. The psychological factors of the family affect students more directly than the material factors, and the proportion of parental support in the psychological factors is high (Xin, 2013). Parents' correct parenting attitudes largely influence students' self-perceptions and thus their self-efficacy (Zou, 2011). Yan (2012) showed that English was a subject that was more influenced by one's attributional status such as family background than other subjects.

The school psychological environment, which is the whole space of learning, living, playing, and interacting in the school that affects students' physical and mental development, includes the atmosphere of students' learning, activities and life, and the interpersonal relationship and ethos of the school (Yang, 2012). In terms of the school psychological environment, the setting of learning goals, the application of learning strategies, and the processing and handling of knowledge are all favourable factors that influence students' self-efficacy, while alternative self-efficacy information can be obtained by observing the activities of peers and teachers (Saab & Klinger, 2010). A study by Zhai (2000) found that when individual students perceived that they were in a safe and orderly, caring and supportive school environment, they had more positive attitudes toward learning and greater confidence in learning, and therefore had more positive motivation and attitudes toward learning and higher levels of self-identity. Ghaith, Harkous and Shaaban (2007) said that the guidance and care given by teachers during the English learning process, classmates' help and support, and the group atmosphere all contributed to active learning, internalization, and development. As a result, adjusting the family and school psychological environment is more likely to help English majors develop higher levels of academic self-efficacy and self-identity than the physical environment at home and school (Da, Xi & Dou, 2011), thus improving English academic performance.



Thus, this study explores the intrinsic factors of family and school psychological environment improvement, analyses the influence of these factors on academic self-efficacy and self-identity through regression analysis of correlations and interactions, and proposes methods to improve academic self-efficacy and self-identity by improving the construction of family and school psychological environment to help students improve their English academic performance.

In order to achieve the above research objectives, this study sets self-efficacy and self-identity as the dependent variables, and family psychological environment and school psychological environment as the independent variables, using English education major university students as the research subjects, and studies the following questions.

- (1) According to the demographic variables of gender, academic year, hometown, presence of siblings, family economic level and academic performance, are there any differences in the family psychological environment, school psychological environment, academic self-efficacy and self-identity of university students majoring in English education?
- (2) Do the family psychological environment, school psychological environment, academic self-efficacy and self-identity of English education major university student affect each other?
- (3) How do English education major university students' family and school psychological environments affect their academic self-efficacy?
- (4) How do English education major university students' family and school psychological environments affect their self-identity?

Method

Research Design

This study was carried out using a correlational research design in which relationships among family and school psychological environment and academic self-efficacy and self-esteem were examined and a structural equation model based on these relations was tested.

Research Subjects

262 university students majoring in English education in teacher training universities of higher education in Guangxi Zhuang Autonomous Region of China, participated as the research subjects. In terms of gender, due to the characteristics of English education as a discipline, the employment direction is relatively narrow, and there are more employment opportunities for women than men; therefore, there are 13 men (5.0%); 249 women (95.0%) in this study. For *academic year*, 35 (13.4%) in freshmen year, 67 (25.6%) in sophomore year, 86 (32.8%) in junior year, and 74 (28.2%) in senior year were finally collected. For *academic performance*, 12 people (4.5%) in the up level; 50 people (19.0%) in the upper-middle level; 141 people (54.0%) in the middle level, 48 people (18.3%) in the lower-middle level; and 11 people (4.2%) in the low level.

Research Tools and Procedures

School Psychological Environment

Teacher support check was based on the scale created by Seok (2007). The dimension consists of 10 questions. In addition, the peer support check used the check of Park (1985), and refined by Lee (2005) according to the research reality. The dimensions were all on a Likert 5-point scale, with higher scores considered to be a higher level of teacher support and peer support. For this study, Cronbach's alpha of the scale was calculated as .903, and the Cronbach's alpha of the two sub-dimensions are .911 (Teacher Support), and .921 (Peer Support).

Family Psychological Environment

The scales of family support and degree of challenge used in this study refer to the scales of Seok & Kang (2007). The scale refers to the dimensions of family support and challenge used by Csikszentmihalyi and Schneider (2000) consists of 15 questions in the family challenge dimension and 16 questions in the support dimension. It is a Likert 5-point scale, with higher scores indicating higher levels of family challenge and support levels are higher. For this study, Cronbach's alpha of the scale was calculated as .910, and the Cronbach's alpha of the two sub-dimensions are .922 (Family Challenge) and .926 (Family Support).

Academic Self-Efficacy

The Scale of Student Academic Self-Efficacy (SSE: Rowbotham & Schmitz, 2013) was the instrument used in this study to assess academic self-efficacy. The self-efficacy scale was designed to measure students' self-efficacy related to academic coursework in a university setting. For this study, Cronbach's alpha of the scale was calculated as .902.

Self-Identity

This study used the Rosenberg's Self-Esteem Scale (RSE: Rosenberg, Schooler, & Schoenbach, 1989), a 10-item scale designed to measure self-esteem, which is one of the most widely used instruments to assess self-identity (Grijalvo et al., 2007). It can be used understand individuals' overall positive or negative attitudes toward themselves. For this study, Cronbach's alpha of the scale was calculated as .899. Cronbach's alpha of the scales was all greater than 0.7, implying good reliability of each dimension.

With the legal permission of the Research Ethics Review Board (Nanning Normal University, 2021), the data collection tools were administered to 480 undergraduate students in teacher training universities of higher education in Guangxi Zhuang Autonomous Region of China, through 290 offline participants (by face-to-face, in classrooms after class) and 190 online participants (by the school's Internet survey network) over a five-day period from June 19 to 23, 2021. Yet only 262 were included for analysis. Because excluding the 120 questionnaires that were not completed or refused to participate, a total of 360 questionnaires were collected (75% return rate). In the collected data, 262 questionnaires (73%) were finally used for the actual analysis, except for 98 which were judged to be centralized or unreliable response value. Information about participation in the study was provided before the survey began and before they were asked for their consent, and survey participants could withdraw from the survey at any time if they felt any discomfort. The data collected did not include information that could identify individuals.



Data Analysis

The analysis of the data was performed by four analytical methods using SPSS 25 program. First, descriptive analysis was used for mean and reliability. Second, independent sample t-test were used to see the difference in the average value between the two groups. Or when there is one independent variable and two or more nominal data, the F test was used to see the difference in the mean value between groups. Third, correlation analysis was used to estimate the relationship between two or more variables. Fourth, Hierarchical regression analysis was used to determine which independent variable sequentially affects the dependent variable when several independent variables affect the dependent variable.

Results

The Differences in the Variables by Demographic Variables

In this study, independent sample t-test and one-way ANOVA were conducted to understand the differences in students' academic self-efficacy, self-identity, family psychological environment and school psychological environment under demographic variables based on the general characteristics of the research subjects.

Table 1. Verification of the differences in school psychology environment, family psychology environment, academic self-efficacy, and self-identity by demographic variables

Demographic Variable	Category	t(or F) value	School Psychology Environment	Family Psychology Environment	Academic Self-Efficacy	Self-Identity
Gender	Male		3.50	3.21	3.30	3.39
	Female		3.40	3.37	3.27	3.41
	t value		.535	-1.03	.145	-.118
	p value		.593	.306	.885	.906
Hometown	Urban		3.58	3.67	3.54	3.72
	Rural		3.36	3.29	3.21	3.34
	t value		-2.13	-4.59	-3.25	-4.26
	p value		.034	≤.001	≤.001	≤.001
Siblings	None		3.52	3.13	3.25	3.36
	Presence		3.38	3.41	3.28	3.42
	t value		-1.26	3.09	.255	.631
	p value		.208	.002	.799	.529
Academic Year	Freshman		3.30	3.29	3.21	3.33
	Sophomore		3.54	3.42	3.36	3.53
	Junior		3.38	3.34	3.24	3.35
	Senior		3.36	3.36	3.27	3.42
	F value		1.30	.487	.534	1.37
	p value		.276	.692	.660	.253
Family Level	Economic					
	Top		3.92	3.82	3.76	3.90
	Upper Middle		3.46	3.40	3.36	3.46
	Middle		3.40	3.35	3.25	3.39
	Lower Middle		3.40	3.42	3.33	3.49
	Low		2.82	2.76	2.57	2.77
	F value		4.18	6.07	5.72	6.24
p value		.003	≤.001	≤.001	≤.001	
Academic Performance Rank	Top		3.70	3.53	3.66	3.67
	Upper Middle		3.47	3.42	3.37	3.47
	Middle		3.38	3.35	3.22	3.38



Lower Middle	3.47	3.44	3.40	3.54
Low	2.85	2.73	2.54	2.79
F value	2.76	4.38	5.67	4.45
p value	.028	.002	≤.001	.002

As shown in Table 1, the values of academic self-efficacy, self-identity, family and school psychological environment were not affected by gender and academic year. There were differences in the level of $p \leq .05$ for school psychological environment, family psychological environment, academic self-efficacy, and self-identity by hometown, respectively ($t = -2.13$, $t = -4.59$, $t = -3.25$, $t = -4.26$). This means that university students were born in the urban areas have higher school and family psychological environment, academic self-efficacy, and self-identity as compared to who were born in the rural areas. There was no difference in school psychological environment, academic self-efficacy, and self-identity in the level of $p \leq .05$ by the presence of siblings, but there was difference in family psychological environment in the level of $p \leq .05$ by the presence of siblings. Namely, students with siblings had a more favorable family psychological environment. There were differences in the level of $p \leq .05$ for school psychological environment, family psychological environment, academic self-efficacy, and self-identity by the average monthly family economic income, respectively ($F = 4.18$, $F = 6.07$, $F = 5.72$, $F = 6.24$). The higher the monthly income amount of the family, the better the academic self-efficacy, self-identity, family, and school psychological environment. There were differences in the level of $p \leq .05$ for school psychological environment, family psychological environment, academic self-efficacy, and self-identity by the academic achievements, respectively ($F = 2.76$, $F = 4.38$, $F = 5.67$, $F = 4.45$). That is, students with better academic performance have higher academic self-efficacy and self-identity, as well as better family and school psychological environment.

Correlations of the Variables

To determine the correlations' coefficients among the variables in this study, Pearson's correlation analysis was conducted. The results were shown in Table 2.

Table 2. Correlation Matrix of School Psychological Environment, Family Psychological

	TS	PS	SPE	FC	FS	FPE	ASE	SI
TS	1	.579**	.880**	.521**	.369**	.543**	.679**	.721**
PS	.579**	1	.896**	.265**	.303**	.344**	.758**	.701**
SPE	.880**	.896**	1	.437**	.377**	.495**	.810**	.800**
FC	.521**	.265**	.437**	1	.358**	.836**	.626**	.672**
FS	.369**	.303**	.377**	.358**	1	.812**	.475**	.663**
FPE	.543**	.344**	.495**	.836**	.812**	1	.671**	.810**
ASE	.679**	.758**	.810**	.626**	.475**	.671**	1	.780**
SI	.721**	.701**	.800**	.672**	.663**	.810**	.780**	1

※ Teacher Support: TS, Peer Support: PS, School Psychological Environment: SPE, Family Support: FS, Family Challenge: FC, Family Psychological Environment: FPE, Academic Self-efficacy: ASE, Self-identity: SI
 ** $p \leq .01$ level (two-tailed)

Environment, Academic Self-Efficacy, and Self-Identity

As shown in Table 2, school psychological environment has a positive correlation with each



academic self-efficacy($r=.810$), self-identity($r=.800$) in the level of $p\leq.01$. Family psychological environment has a positive correlation with each academic self-efficacy($r=.671$), self-identity($r=.810$) in the level of $p\leq.01$. Each teacher support and peer support, which are sub-variables of school psychological environment, has a positive correlation with academic self-efficacy ($r=.679, .758$) and self-identity ($r=.721, .701$), respectively. Each family challenge and family support, which are sub-variables of family psychological environment, has a positive correlation with academic self-efficacy ($r=.626, .475$) and self-identity ($r=.672, .663$), respectively.

Therefore, it can be assumed that English education major university students' academic self-efficacy is higher in school psychological environment ($r=.810$) than in family psychological environment ($r=.671$). Their self-identity can be predicted that in family psychological environment ($r=.810$) is somewhat higher than in school psychological environment ($r=.800$). It can be assumed that peer support ($r=.758$), a sub-variable of their school psychological environment, has a greater relationship with academic self-efficacy than teacher support ($r=.679$). It can be predicted that family challenge ($r=.672$), a sub-variable of their family psychological environment, has a greater relationship with self-identity than family support ($r=.663$).

The Influence of Family and School Psychological Environment on the Academic Self-Efficacy of English education Major University Students

This study conducted a hierarchical multiple regression analysis. As shown in Table 3, it is the school psychological environment that has a greater impact on the academic self-efficacy, accounting for 65.7% of the total variables. The influence of family psychological environment on academic self-efficacy has a 9.6% explanatory power. The regression equation for predicting the evaluation results of academic self-efficacy through family and school psychological environment is as follows:

$$[\text{Academic Self-efficacy}] = .618 \times [\text{School Psychological Environment}] (p\leq.05) + .424 \times [\text{Family Psychological Environment}] (p\leq.05) - 0.258 (p\leq.05)$$

Table 3. The results of hierarchical multiple regression analysis of the influence of family and school psychological environment on academic self-efficacy of English education major university students

Model		B	SD	β	t	P	F	P	R ²
1	(constant)	.580	.123		4.71	$\leq.05$			
	School Psychological Environment	.791	.035	.810	22.30	$\leq.05$	497.5	$\leq.05$.657
2	(constant)	-.258	.134		-1.97	$\leq.05$			
	School Psychological Environment	.618	.035	.633	17.83	$\leq.05$	395.7	$\leq.05$.753
	Family Psychological Environment	.424	.042	.358	10.08	$\leq.05$			

Because the school psychological environment has a greater impact on the academic self-efficacy, a hierarchical multiple regression analysis was conducted again on the impact of



each sub-dimension of school psychological environment on the academic self-efficacy. As the results shown in Table 4, the major influence on academic self-efficacy of English

education major university students was peer support, which accounted for 57.5% of the total variables. The effect of teacher support on academic self-efficacy had an explanatory power of 8.7%. The regression equation for predicting the evaluation results of academic self-efficacy through peer support and teacher support is as follows:

$$[\text{Academic Self-efficacy}] = .437 \times [\text{Peer Support}] (p \leq .05) + .341 \times [\text{Teacher Support}] (p \leq .05) + .624 (p \leq .05)$$

Table 4. The results of hierarchical multiple regression analysis of the influence of peer support and teacher support on academic self-efficacy of English education major university students

Model		B	SD	β	t	P	F	P	R ²
1	(constant)	1.21	.113		10.75	$\leq .05$			
	Peer Support	.603	.032	.758	18.76	$\leq .05$	351.8	$\leq .05$.575
2	(constant)	.624	.124		5.02	$\leq .05$			
	Peer Support	.437	.035	.549	12.40	$\leq .05$	253.3	$\leq .05$.662
	Teacher Support	.341	.042	.361	8.14	$\leq .05$			

The Influence of School and Family Psychological Environment on the Self-identity of English education Major University Students

This study conducted a hierarchical multiple regression analysis. As shown in Table 5, it is the family psychological environment that has a greater impact on the self-identity accounting for 65.6% of the total variables. The influence of school psychological environment on self-identity has a 21% explanatory power. The regression equation for predicting the evaluation results of self-identity through school and family psychological environment is as follows:

$$[\text{Self-identity}] = .590 \times [\text{Family Psychological Environment}] (p \leq .05) + .467 \times [\text{School Psychological Environment}] (p \leq .05) - .163 (p = .068)$$



Table 5. The results of hierarchical multiple regression analysis of the influence of family and school psychological environment on self-identity of English education major university students

Model		B	SD	β	t	P	F	P	R ²
1	(constant)	.484	.133		3.631	≤.05			
	Family Psychological Environment	.871	.039	.810	22.29	≤.05	496.7	≤.05	.656
2	(constant)	-.163	.089		-1.83	.068			
	Family Psychological Environment	.590	.028	.549	21.04	≤.05	844.0	≤.05	.866
	School Psychological Environment	.467	.023	.528	20.25	≤.05			

Because the family psychological environment has a greater influence on the self-identity of English education major university students, a hierarchical multiple regression analysis was done again on the influence of its sub-dimensions on self-identity, and the results are shown in Table 6. The factor that has a greater influence on the self-identity of English education major university students is family challenge, which accounts for 45.2% of the total variables. The effect of family support on self-identity had 20.5% of the explanatory power. The regression equation to predict the evaluation results of self-identity through family challenge and family support was as follows:

$$[\text{Self-identity}] = .457 \times [\text{Family Challenge}] + .415 \times [\text{Family Support}] + .479 \quad (p \leq .05)$$

Table 6. The results of hierarchical multiple regression analysis of the influence of family support and family challenge on self-identity of English education major university students

Model		B	SD	β	t	P	F	P	R ²
	(constant)	1.55	.130		11.94	≤.05			
	Family Challenge	.560	.038	.672	14.65	≤.05	214.6	≤.05	.452
2	(constant)	.479	.134		3.56	≤.05			
	Family Challenge	.457	.032	.499	12.80	≤.05	247.8	≤.05	.657
	Family Support	.415	.037	.484	12.42	≤.05			



Discussion and Conclusion

This study investigated the differences in academic self-efficacy, self-identity, family and school psychological environment of English education major university students in Guangxi Zhuang Autonomous Region by demographic characteristics (gender, academic year, hometown, presence of siblings, family economic level and academic achievement), and the following conclusions were drawn.

There were no differences in academic self-efficacy, self-identity, family psychological environment, and school psychological environment by academic year and gender. Da (2000) and Tong (2004) said that different genders did not cause significant difference in self-efficacy. Male and female university students did not show significant gender differences in the development of self-identity. This is mainly because male and female university students may likely go through roughly the same process of establishing their self-identity, and gender does not play a decisive role in this process in the study context. English education major university students are clearer about their future career direction when they enter universities and have clearer goals. Their parents are also more supportive of their future teaching careers and give them relatively less pressure, so they do not have strong internal conflicts. At the same time, school and family expectations for them remain steady because of the clearer employment direction. Therefore, the self-identity of English education major university students is relatively stable despite the growth of their academic year.

No noticeable differences in academic self-efficacy, self-identity, and school psychological environment by presence of siblings in the level of $p \leq .05$ were found, but there were differences in family psychological environment. With the change of family planning policy, families nowadays are mostly structured with two or more children. In this study, the subjects with siblings accounted for 82.4% of the subjects. The results of this study showed that students with siblings had a more favourable family psychological environment. In families with siblings, students can not only feel the love and care from their parents, but also have the encouragement and support from their peers and get more emotional satisfaction and spiritual support as they grow up (Yu & Lei, 2004).

There were significant differences in the level of $p \leq .05$ for school psychological environment, family psychological environment, academic self-efficacy, and self-identity by hometown, respectively ($t = -2.129$, $t = -4.589$, $t = -3.249$, $t = -4.262$). Parents of urban families have relatively higher education and literacy levels and stronger education awareness. Many urban families give priority to developing student's education, paying more attention to learning education methods and family education theories, and strive to educate student with modern education concepts, form correct parenting concepts, harmonious family interpersonal relationships and scientific parenting styles. So, the family psychological environment is more superior, and students are more likely to obtain higher levels of academic self-efficacy and self-identity in this kind of family psychological environment (Zhang, 2012). Students born in the urban area are more adaptable at school and can feel better about the psychological environment of their schools.

Significant differences were found in the level of $p \leq .05$ for school psychological environment, family psychological environment, academic self-efficacy, and self-identity by the average monthly family economic income, respectively ($F = 4.177$, $F = 6.070$, $F = 5.722$, $F = 6.235$). That is, the better the family's economic conditions, the more various supports it can provide for the students, and the greater the impact. When students have a warm and comfortable living environment and superior material living conditions, there will be less



conflicts and contradictions among family members caused by financial problems and family members will have more harmonious relationships (Huang & Zhang, 2009). In addition, students from poor families are easily influenced by the negative emotions and behaviors of their parents. For them, they feel less support from teachers and classmates at school, and as a result, the psychological environment of school is poorer (Tan, 2008).

In terms of academic achievement, this study found that students with successful scores had higher levels of academic self-efficacy and self-identity than those with poor scores and had superior family and school psychological environment ($F=2.759$, $F=4.377$, $F=5.671$, $F=4.448$). Academic performance is closely related to students' academic self-efficacy and self-identity formation (Wang & Chen, 2013). Successful academic performance and academic status, as well as academic progress are conducive to increasing students' self-confidence and self-identity levels, while poor academic performance often causes students to deny themselves and doubt themselves, thus decreasing their academic self-efficacy and self-identity levels (Yang, 2012). Schneewind (1995) found that good or bad academic performance was associated with the amount of emotional warmth and understanding given to them by their parents and teachers. Students perform better in study when they feel that the school psychological environment is better and more supportive. A beautiful and safe school environment, harmonious relationships among peers, mutual acceptance, and teacher support make students more motivated to learn, and the motivation to learn is transformed from external to internal motivation, i.e., learning is from the heart rather than from external pressure, which in turn can promote students' academic performance (Zhou, et al. 2016).

The results of this study showed that the school psychological environment had a greater influence on the academic self-efficacy of English education major university students compared with family psychological environment. University students start their life away from home and spend more time studying in school, so more understanding of the interrelationship between school environment and students' academic self-efficacy is the key to help university students improve their self-efficacy. In this study, peer support has greater influence on the academic self-efficacy of English education major university students than teacher support in the school psychological environment. This is consistent with the findings of Feng (2020), who stated that the factor influencing students' self-efficacy is the relationship between classmates. Peers are easier to play the role of role modelling and awakening each other with positive verbal encouragement and persuasion to enhance students' preconceptions of their learning ability, as Bandura's self-efficacy theory suggests that the role modelling, verbal persuasion and awakening of peers can effectively enhance self-efficacy (Liang, 2000).

In this study, family psychological environment has a greater influence on the self-identity of English education major university students compared with school psychological environment. Although university students live away from home, the values that have been followed within the family, the way parents educate the student, and the atmosphere formed by the family have been subconsciously influencing their values and becoming their standards, which have a greater impact on the development of their self-identity. This study also found that family challenge has a greater influence on the self-identity of English education major university students than family support. On the other hand, positive parental encouragement had a significant effect on students' sense of self-worth, while poor parenting practices could have a negative impact on students' sense of self-worth (Jiao, 2009; Xu & Liu, 2005 & Zhang, 2002). Individuals tend to discover and shape their selves from others' reactions, attitudes, evaluations, and expectations, and parental expectations are more easily transmitted to students through parents' words and actions (Lynch, Ryan, & Stiller, 1994), and

parental expectations help students to construct self-beliefs (So, 2008). On the contrary, low parental expectations can lead to lower self-identity, which can have a negative impact on various aspects such as academic and mental health (Liu, 2016).

Suggestions

Based on the findings, the following recommendations are made to address the peer support factors that have the greater influence on academic self-efficacy. First, establish a peer counselling centre. University students are more willing to confide in and seek help from their peers and are also more likely to influence each other in the process of mutual interaction. Peer counselling is to give psychological guidance, comfort and support to students and friends who need help around them, and to provide a kind of help with the function of psychological counselling. When serious problems are found that cannot be dealt with on their own, students can refer to a professional counsellor for help. Second, establish a harmonious interpersonal environment on campus. The code of "humility and courtesy, open-mindedness, honesty and trustworthiness, diligence and knowledge" should be carried out in the students' study life, guiding them to handle interpersonal conflicts correctly and arranging various forms of group activities to help them practice how to establish good interpersonal relationships with others. Third, create a united and harmonious dormitory psychological environment. University students have the closest and most frequent interactions with their housemates, so the dormitory cultural atmosphere created by the dormitory members together implicitly affects the formation and level of university students' outlook on life, worldview and values.

Also, according to the findings of this study, family challenge influences students' positive self-identity development; therefore, families should encourage and support students' challenges to help students develop a desirable sense of self-identity. Therefore, it is necessary for parents to provide students with the stimulation and support to challenge them for their positive development. In order to enable students to learn in a more stable and comfortable family psychological environment, family members need to provide continuous help assistance by constantly communicating with students to encourage them for new activities (Zhang, 2002). In order to strengthen the self-identity of university students, it is necessary to choose the Blue Ocean Strategy rather than the Red Ocean Strategy by family in the education of university students (Kim & Mauborgne, 2015). Any subsequent study can consider a wider geographical area in China to collect data, and how to innovate the teaching and education model for self-efficacy and self-identity development based on the different family and school psychological environment in order to achieve the best effect is the topic worthy of further in-depth study.

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