Research on the Relationship Between Self-Efficacy and College Student Creativity

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Abstracts

This study explored the effects of self-efficacy on creativity among college students and the differential analysis of self-efficacy and creativity by different demographic variables. By convenient sampling, 1,100 college students from 7 universities in Jilin Province, China were selected as research objects, and electronic questionnaires were distributed for testing, and a total of 1,046 valid questionnaires were collected. Research tools included the Creative Thinking Scale, the General Self-efficacy Scale. Data analysis was performed using independent sample t-tests, one-way ANOVA, descriptive statistical analysis, correlation analysis, and structural equation model fit assays. The results showed significant differences in creativity in gender, grade, specialty, self-efficacy, higher boys than girls, and no significant differences in grade and major. Self-efficacy positively predicts creativity. Improving the self-efficiency of college students can improve the creativity of college students, so as to provide reference for their creativity training and the improvement of their quality.

Keywords: Research on the Relationship; Self-Efficacy; College Students Creativity

Introduction

The development and progress of human society needs creativity, the improvement of national core competitiveness, the comfort and convenience of people's life, and the improvement of the quality of college students. As an important part of the national innovation system, colleges and universities are the main position of innovative talent training. How to cultivate innovative talents and continuously improve the creativity of college students is a more and more concern for educators and the whole society. College students in this paper refer to the college students of colleges and universities.

In his report to the 20th National Congress of the Communist Party of China, President Xi Jinping (2022) pointed out that we must ensure that science and technology is the primary productive force, talent is the primary resource, and innovation is the primary driving force. Sternberg and Lubart (1996) believes that creativity can solve problems in daily life for individuals; for society, it can cause artistic creation, scientific innovation, new invention and new design schemes; for economy, it can create new or novel services or products, enhance the added value of products, and create new employment opportunities. Bandura sees self-efficacy as a perception of behavioral operational ability, and as a judgment of people's ability to form and implement a process of action to achieve the specified operational purpose (Bandura, 1986). So how does self-efficacy affect creativity? This study should improve the call of high-quality education, aiming to study the relationship between self-efficacy and creativity of college students, and put forward discussions and suggestions through the results of literature research and measurement.

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Research Objective

This study explored the effects of self-efficacy on creativity among college students and the differential analysis of self-efficacy and creativity by different demographic variables. By convenient sampling, 1,100 college students from 7 universities in Jilin Province, China were selected as research objects, and electronic questionnaires were distributed for testing, and a total of 1,046 valid questionnaires were collected.

Literature review

1. The concept of creativity

The concept of creativity is not unified among domestic and foreign scholars. Below, the meaning of creativity will be discussed from the perspectives of existing conditions, behavioral process and resulting results.

From the perspective of the existing conditions. In the 1950s, Guilford, president of the American Psychological Society (1950), stressed that " creativity is not only a talent or trait of a few people, but also the ability of every ordinary person. Some scholars believe that creativity is related to human personality characteristics, knowledge, intelligence, ability, creative skills, external environment, motivation, etc. (Guilford, 1950 ; Barron, 1955 : 478 ; Helson, 1965 : 352 ; Gordon, 1961 : 56 ; Guilford, 1956 : 267). From the perspective of the behavioral process. The earliest definition of creativity focused on the development of creativity. Wallas (1926 : 63) describes four stages in the development of an idea: preparation, incubation, elucidation and verification. Zhou Zhijin et al. (2006 : 78-82) believe that from the perspective of the research orientation of the creative process, creative activities include a variety of complex cognitive activities, and creative thinking is its core. Leonardb and Swap (1999 : 61) believes that the process of generating and expressing strange ideas that might be useful is creativity. From the perspective of producing the results. In the 30 years since the 1960s, the definition of creativity has shifted from emphasis process to product (Scott, 1995 : 64-71)."Creativity means novel and practical ideas, products or services" (Amabile, 1996 : 142). Greenberg (1992 : 41) defines creativity as a process that produces a new work or output ".

Although researchers have defined creativity in a variety of dimensions, domains, and perspectives, it is often believed that creativity refers to the ability of individuals or a closely cooperative group of individuals to produce novel and appropriate ideas (Amabile, 1983 : 357-376). In this study, creativity is defined as the ability of college students to produce new ideas and new things valuable to the society and individuals with creative thinking as the core.

2. Self-efficacy (Self efficacy)

Self-efficacy (self-efficacy) is an estimate of the likelihood of completing a particular task (Bandura, 2000 : 16). In Bandoura's view, perceived self-efficacy results in self-efficacy, which refers to people's confidence or belief in their ability to achieve behavioral goals in a specific domain (Bandura, 1982 : 122). On the basis of Bandura's definition of self-efficacy, domestic scholars have defined self-efficacy differently according to the objects and fields of their own research. For example, Wang Dehua (1992 : 98) believes that self-efficacy is the judgment of people's ability to organize and implement their behavior in order to achieve a predetermined behavior pattern. It is associated not only with the skills one has, but also with whether one can use what one possesses. Self-efficacy is the degree of speculation, judgment and confidence in whether one has the ability to complete a certain situation, and it is the self-perception and self-grasp of an individual's ability to complete a specific goal. Self-efficacy is

a kind of ability belief for individuals to successfully complete a specific task by mobilizing their own motivation, cognition and other resources in a certain environment (Zhou Wenxia, Guo Guiping, 2006). Some scholars believe that self-efficacy refers to an individual's general confidence in their ability to perform a challenging task in any situation. It acknowledges the existence of general self-efficacy (Zhang Li, Xu Xin, 2023 : 65).

This paper studies and discusses perceived self-efficacy, only perceived self-efficacy can be measured, so self-efficacy and self-efficacy are synonymous in this paper. From the perspective of the actual situation of this study, self-efficacy is defined as the degree of confidence that college students show when they use their knowledge and skills to complete certain tasks, study and scientific research tasks.

3. Study on the relationship between self-efficacy and creativity

According to the theory that self-efficacy can control and regulate human cognition, emotion and behavior, self-efficacy can control and regulate creativity. Studies have shown that innovation self-efficacy, as a form of self-efficacy, has a positive prediction of innovation performance (Carmeli & Schaubroeck, 2007 : 35-48). Innovative self-efficacy is an important prerequisite for creative endeavor and performance (Chen Peifeng, Wang Yating, 2014 : 184-192).

Mathisen and Bronnick (2009 : 21-29) pointed out that the cultivation of creative self-efficacy can improve individual creativity, and that creative self-efficacy training may have a longer-term effect than creative training. Self-efficacy is an individual's self-assessment of their ability in some area of their work. According to the self-efficacy theory, individuals believe that they have a high degree of self-efficacy according to a challenging job, so they dare to take a risk. Studies have proved that the higher the level of psychological capital (including self-efficacy) of college students, the higher the level of creativity displayed. The reason may be that, on the one hand, individuals with high levels of mental capital (including self-efficacy) usually use their abilities, which may be ways to improve creativity; on the other hand, positive emotions related to individual mental capital (including self-efficacy) can influence individual creativity by promoting related thinking activities, divergent thinking activities and cognitive flexibility (Shi Changmei, 2014). Liu Ting (2011) verified the significant influence of self-efficacy on innovation behavior through the construction of structural equation model. It can be inferred that the hypothesis of this study H3: the self-efficacy of college students has a significant positive effect on creativity.

Research Methodology

1. Research Design

This study takes self-efficacy as the independent variable, creativity as the dependent variable, and gender, grade and specialty as the background variables. The study framework is shown in Figure 1.

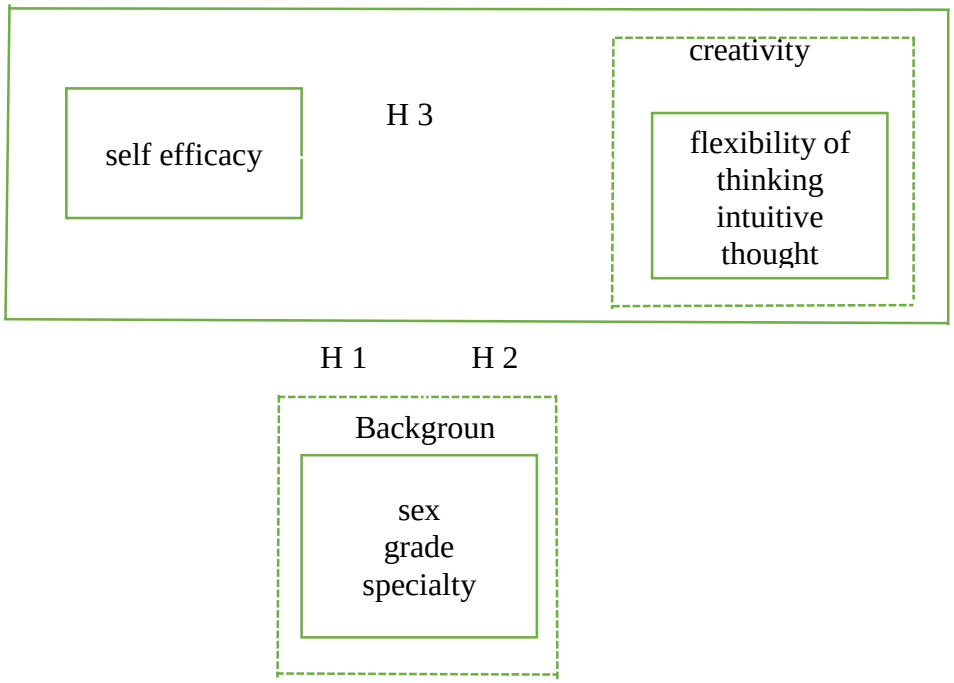

Figure 1 A study framework of Fig

In this study, the research hypothesis is proposed through literature analysis: hypothesis H1: explore the significant difference of self-efficacy of college students among different demographic variables; hypothesis H2: explore the creativity of college students among different demographic variables; hypothesis H3: the self-efficacy of college students has a positive impact on creativity. Questionnaire data from this study were used to verify the proposed hypothesis. SPSS25.0 and AMOS25.0 software were used as tools to conduct reliability and validity verification and correlation analysis on the collected scale data, and the structural equation model was used to build the measurement model and structural equation model (Bollen, 1989) for statistical analysis, and then discuss the research conclusions.

2. Study subjects

In this study, 7 universities in Jilin Province, China were selected as the research objects, and the group and individual test were combined. With the help of the counselors, the electronic questionnaire was distributed to the subjects. After the subjects briefly explained the purpose and requirements of the test, the subjects answered the questions. For personal testing, the questionnaire was sent to the counselor and then forwarded to the students. Within one week, a total of 1100 questionnaires were distributed, and 1046 valid questionnaires were collected, with a recovery rate of 95.1%.

Since the study design data were collected and processed anonymously and used only for academic research and did not involve personal privacy, the Institutional Review Board of Thailand Jiale University considered low risk and approved to conduct the study. Verbal consent was obtained from schools, teachers, students, and parents before conducting this study. Students were told to participate voluntarily.

3. Research Tools

3.1 Creativity

This study used the creative thinking subscale developed by Zhou Zhijin et al. (2006 : 78-82). Zhou Zhijin believes that creative thinking is the most core factor in creativity. The three dimensions of the quality of creative thinking are named: thinking acuity, flexibility of thinking, and intuitive thinking, including 11 items."Keen of thinking" means that college students are good at finding problems and grasping the key to problems."Flexibility of thinking" means that college students are good at thinking from different angles and can find many ways or ways to solve problems."Intuitive thinking" means that college students have good intuitive thinking ability (Zhou Zhijin et al., 2006 : 78-82).

3.2 Self-efficacy

The general Self-efficacy Scale (Schwarzer, GSES, Mueller and Greenglass (1999 : 145-161), GSES) was used. Schwarzer There is a general sense of self-efficacy, which refers to the overall confidence of an individual to cope with challenges from different environments or to face new things (Schwarzer, 1997 : 177-190)。The scale form is a one-dimensional measurement scale, and this unidimensionality is found to be common across languages (Schwarzer & Jerusalem, 1995 : 35-37). With 10 entries in the Likert 4-point method, GSES has been translated into at least 25 languages and is widely used internationally (Schwarzer et al, 1997; Schwarzer et al, 1999). GSES has an internal consistency coefficient of 0.87 and a folded half reliability of 0.90. It is a very reliable scale. At present, many domestic scholars have verified the above self-efficacy scales in different fields (Wang Caikang et al., 2001 : 37-40 ; Li Ling, 2001 : 618-618 ; Yu Hong et al., 2020 : 106-115).

In this study, measure using Likert 5 point scoring method, according to the answer answer, in accordance with the "completely, do not conform to 1 points, comparison is not consistent, for 2 points, uncertain for 3 points, 4 points, fully accord with 5 points", give answer assigned points, the higher the score, the higher the students self-efficacy and creativity level.

4. Study Methods

4.1 Reliability analysis

In this study, the Cronbach's Alpha coefficient is the kronbach α value to investigate the reliability of the questionnaire. In this study, the total Cronbach's Alpha coefficient of innovative thinking was 0.881, the Cronbach's Alpha coefficient of thinking flexibility was 0.921, the Cronbach's Alpha coefficient of intuitive thinking was 0.951, and the Cronbach's Alpha coefficient of thinking acuity was 0.780; the Cronbach's Alpha coefficient of self-efficacy was 0.967. It can be seen that the Cronbach's Alpha coefficient of both scales was greater than 0.8, indicating that the questionnaire has good reliability and the results have stability and reliability.

4.2 Model evaluation

A. Normality test: According to Bollen & Long (1993 : 154), when the data skewness and the absolute peak value of the observed variable meet the condition of less than 2, the observed variable can be considered to be normal. The skewness (sk) of self-efficacy is between-0.783-0.552 and kurtosis between-0.742-0.400; the skewness (SK) of creativity is

between-0.755-0.165, meeting the criterion of absolute value less than 2 and meeting the normal distribution; the Mardia coefficient of self-efficacy is 53.070 and less than 10 * (10 + 2) =120; the Mardia coefficient of creativity is 90.668 less than 11 * (10 + 2) =143. As can be seen from the test results, the Mardia coefficient of the formal questionnaire data of the two scales is less than the value of P * (P + 2), which meets the multiple normality distribution standard of Bollen (1989).

B. Violation estimation verification: there are three criteria for violation, namely there is no negative error variation (EV); standardized regression weighted coefficient (SFL) does not exceed 1; there is no large standard error. There is no violation of estimation (offending estimate) for meeting the three criteria simultaneously. The number of error variants (EV) for self-efficacy is between 0.481 and 0.633, both are positive and significant; the quasi-regression weighting coefficient (SFL) is between 0.767 and 0.854, not 1 and not more or too close to 1; the estimated standard error of measurement error variance is between 0.023 and 0.030 without too large standard error (SE); the number of error variation (EV) for creativity is 0.483-0. Between 469, both positive and significant; the quasi-regression weighting coefficient (SFL) is between 0.757 and 0.897, no more than 1 and not more than or too close to 1; the estimated standard error of measurement error variance is between 0.013 and 0.023, without much standard error (SE). Therefore, the above three variables are not in the estimation violation situation.

C. Model fit test: according to Bentler and Chou (1987); Hair et al.(2013); the ratio of theoretical χ 2 / df of Schumacker and Lomax (2004) is ideal between 1-3, but less than 5 is also acceptable, RMSEA value less than 0.05 is ideal, but less than 0.08 is acceptable. GFI, NFI, TLI, CFI, CFI, IFI, RFI, should be greater than 0.9, PNFI and PCFI should be greater than 0.5.

Table 1 shows the fitting effect of the creativity measurement model, and all the fit indicators are ideal. The value of X2 / DF is 4.827, less than the upper limit of 5, AGFI, GFI, GF I, IFI and CFI are all above 0.9, and RMSEA is 0.061, less than the upper limit of 0.10, so that the measurement model is valid.

Table 1 Adaptation indicators of the CFA measurement model

X^2	DF	X^2/DF	GFI	AGFI	IFI	CFI	RMSEA
197.896	41	4.827	0.966	0.945	0.981	0.981	0.061

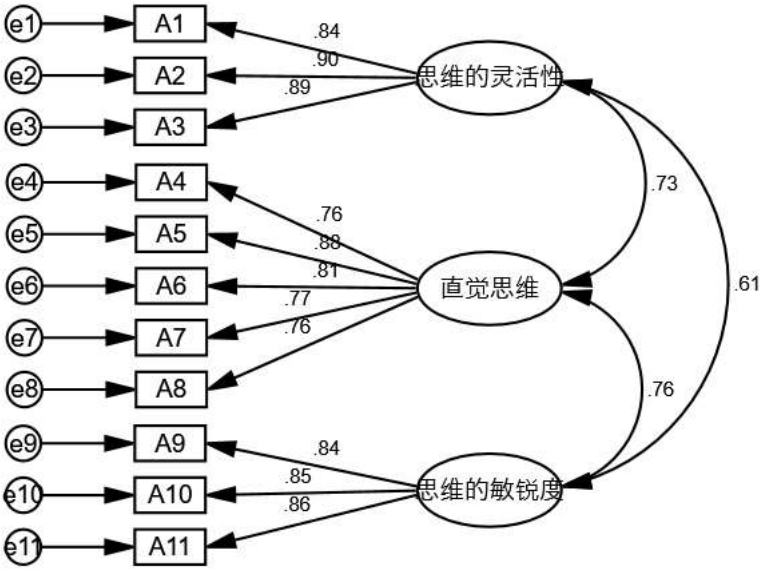

Figure 2 The Creativity CFA model

Table 2 shows the fitting effect of the self-efficacy measurement model, and all the fit measures are ideal. The value of X2 / DF is 4.313, which is less than the upper limit of 5, AGFI, GFI, IFI and CFI are all above 0.9, and RMSEA is 0.056, less than the upper limit of 0.10, so that the measurement model is valid.

Table 2 The fit measures of the CFA measurement model of the Self-efficacy Scale

X^2	DF	X^2/DF	GFI	AGFI	IFI	CFI	RMSEA
150.965	35	4.313	0.971	0.954	0.987	0.987	0.056

D. Convergent validity verification: Convergent validity refers to the degree of similarity between the different observed variables and the measurement results corresponding to the different test items (Wang Zhining et al., 2018). The convergence validity is judged by the factor load, combined reliability and AVE value of each item. The judgment criterion is that the factor load of each item should be greater than 0.50 and significant when t test (Hair et al., 2013), the combined reliability (Construct Reliability, CR) should be greater than 0.60 (Bagozzi and Yi, 1988 : 74-94 ; Fornell and Larcker, 1981 : 62), and the average latent variable (Average Variance Extracted, AVE) should be greater than 0.5 (Fornell & Larcker, 1981 : 62), so that the aggregation validity of the scale is good.

As can be seen from Table 3, the standardized factor load of each item of the three latent variable factors is greater than 0.6, indicating that the CR of 0.908,0.897 and 0.883, respectively, are greater than 0.6, indicating that the overall reliability and internal consistency of each item are high. For the aggregate validity of the factor, the average variance extraction (AVE) of the three latent variables were 0.767,0.635 and 0.716, all greater than the standard of 0.5, showing good aggregate validity.

Table 3. Composition reliability analysis of the creative force chart

Question item	factor	Estimate	P price	CR	AVE
A1	flexibility of thinking	0.837		0.908	0.767
A2		0.897	***		
A3		0.891	***		
A4	intuitive thought	0.759		0.897	0.635
A5		0.881	***		
A6		0.811	***		
A7		0.769	***		
A8		0.757	***		
A9	Mind acuity	0.837		0.883	0.716
A10		0.845	***		
A11		0.856	***		

As can be seen from Table 4 that the standardized factor load of latent variable items is greater than 0.6, indicating that each item has good interpretation strength within the factor. The reliability index CR of latent variable is 0.955, and the lowest index is greater than 0.6, indicating that the overall reliability and internal consistency of each item are also high. For the aggregation validity of the factor, the average variance extraction (AVE) of the latent variable was 0.681, which was greater than the standard of 0.5, showing good aggregation validity.

Table 4. Composition reliability analysis of the self-efficacy scale

Question item	factor	Estimate	P price	CR	AVE
B1	self efficacy	0.767		0.955	0.681
B2		0.833	***		
B3		0.825	***		
B4		0.829	***		
B5		0.804	***		
B6		0.854	***		
B7		0.837	***		
B8		0.854	***		
B9		0.831	***		
B10		0.817	***		

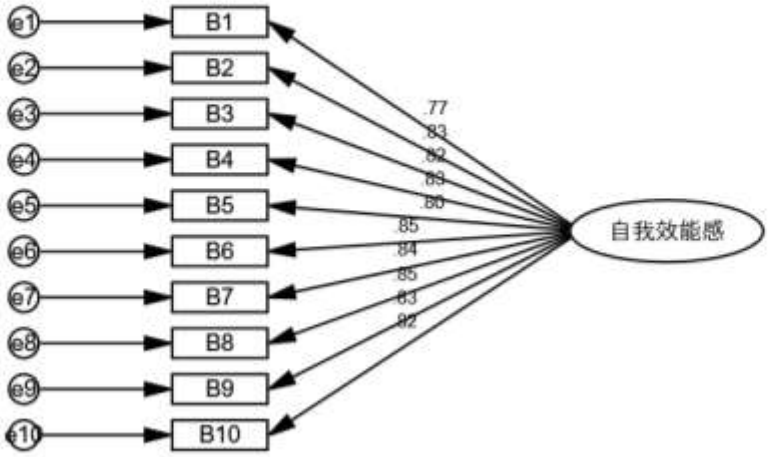

Figure Figure 33 The CFA model of self-efficacy

E. Differential validity verification: Differential validity refers to the low correlation between different structural surfaces. That is, if the average amount of variation (AVE) of each surface is greater than the square of the correlation coefficient between the surface and other surfaces, the surface can be considered to have a differential validity (Fornell and Larcker, 1981).

Table 5: Analysis of correlation of each surface

		1	2	3	4
1	efficacy	0.825			
2	Mind acuity	0.259	0.846		
3	intuitive thought	0.293	0.757	0.797	
4	flexibility of thinking	0.276	0.607	0.731	0.876
	AVE	0.681	0.716	0.635	0.767

As can be seen from Table 5, the flexibility coefficient of self-efficacy to thinking sensitivity, intuitive thinking and thinking is between 0.259-0.293, all less than the square root of AVE of 0.825; the correlation coefficient of thinking sensitivity to intuitive thinking and thinking flexibility is 0.757 and 0.607 are less than the square root of AVE of 0.846, and the correlation coefficient of intuitive thinking to thinking flexibility is 0.731 less than 0.797, indicating that the fit of the two scales is good.

Results

1. Difference analysis

According to Table 6, the differences of gender were compared by independent sample t-test, and creativity test value t is 4.051, and significance P <0.05 level, with significant difference, showing that male creativity was significantly higher than women; self-efficacy test value t is 2.859, significance P <0.05 level, with significant difference, specifically, male self-efficacy was significantly higher than that of women.

Table 6 Test of differences in sex for the individual variables

	sex	The number of cases	average value	standard deviations	t	p
creativity	man	367	3.5769	.74568	4.051	0.000
	woman	679	3.3856	.71986		
self efficacy	man	367	3.7820	1.00178	2.859	0.004
	woman	679	3.5916	1.04168		
	woman	679	4.2003	.83497		

From Table 7, comparing the differences of each variable in grade by one-way ANOVA, creativity test value F was 3.106 and significance level P <0.05, which showed significant difference, specifically, creativity was significantly higher than that of sophomore and junior year; the self-efficacy test value F was 0.369 and significance level P> 0.05, there was no significant difference.

Table 7 Test of differences in grade

	grade	The number of cases	average value	standard deviations	F	P	Multi-group comparison
creativity	freshman ①	183	3.5847	.78778	3.106	0.026	①>②、③
	sophomore ②	446	3.4205	.72523			
	junior ③	302	3.3974	.68973			
	senior ④	115	3.5130	.77450			
self efficacy	freshman ①	183	3.6809	1.07576	0.369	0.776	
	sophomore ②	446	3.6231	1.04786			
	junior ③	302	3.7000	.98403			
	senior ④	115	3.6504	1.02498			
	sophomore ②	446	4.1667	.83660			
	junior ③	302	4.2455	.77039			
	senior ④	115	4.3037	.74758			

From Table 8, through the analysis of variance, creativity test value F was 16.026, significance level P <0.05 level, there was significant difference, the creativity of art and other categories was significantly higher than science and social sciences; self-efficacy test value F was 0.545, significance P> 0.05 level, with no significant difference. The above conclusions verify that part of hypothesis 1 holds and hypothesis 2 holds.

Table 8 Professional difference tests of the individual variables

	specialty	The number of cases	average value	standard deviations	F	P	Multi-group comparison
creativity	science and engineering ①	392	3.4079	.64384			
	Social science ②	329	3.3263	.71838	16.026	0.000	③>①、②
	Art and other classes of ③	325	3.6347	.81540			
self efficacy	science and engineering ①	392	3.7000	1.00553			
	Social science ②	329	3.6228	1.07791			
	Art and other classes of ③	325	3.6443	1.01538	0.545	0.580	
	Social science ②	329	4.1502	.84848			
	Art and other classes of ③	325	4.2721	.75789			

2. Correlation analysis

In regression analysis with self-efficacy as the independent variable and creativity as the dependent variable, the model test value of self-efficacy on creativity was 99.630, with significance P <0.05 level, so the regression model was significant, the regression coefficient was 0.210 and significance P <0.05 level, so there was a significant positive effect of self-efficacy on creativity, and hypothesis 3 was true.

Table 9 Regression analysis of self-efficacy on creativity as well as motivation for innovation

	creativity
constant	2.684***
self efficacy	0.210***
F	99.630***
R square	0.087

Discussion

Differences in the changes of college students with different background changes

A. Background change: There are significant differences in creativity among college students of different genders, with boys higher than girls, which is consistent with the research results of Zhou Zhijin et al. (2006 : 78-82) and Shi Changmei (2014). There is no specific statistical difference between men and women in Rababah (2018) and Gao Shan and Zeng Hui (2012 : 138). However, there was no significant difference in the level of self-efficacy among college students. This verifies with the data of He Xiaocong (2014 : 90-93) that the innovation self-efficacy of boys is significantly higher than that of girls. Compared with Xu Jiuchun (2006), female English self-efficacy is higher than that of boys. Firstly, creativity and self-efficacy and creativity and self-efficacy in different fields and more or less regions, leading to different measurement results.

B. Grade as background change: there are significant differences in creativity among different grades, higher than the sophomore year and higher than the second year, which is basically the same as the research results of Gao Shan, Zeng Hui (2012 : 138), Lu Jinmei and Chen Kai (2013 : 68-71). There was no significant difference in self-efficacy, which is consistent with the findings of Shi Changmei (2014) and Liao Youguo (2010).

C. Taking majors as the background: there are significant differences in creativity of

majors, and art is higher than science and technology and social science. The research conclusions are basically the same as Hamadneh and Ayasrah (2010), Shi Changmei (2014), Zhou Zhijin, etc. (2006 : 78-82) and Lu Jinmei and Chen Kai (2013 : 68-71). In terms of self-efficacy, there was no significant difference among college students of different majors, which is consistent with the study results of Liao Youguo (2010).

Self-efficacy has a significant positive impact on creativity

The results of this study showed that college undergraduate self-efficacy positively and significantly influences creativity. That is, the higher the level of self-efficacy, the higher the level of creativity. This is consistent with the conclusion that the higher the self-efficacy level of college students of Shi Changmei (2014), the higher the creativity level, and the significant positive correlation between the personal innovation self-efficacy and innovation performance of He Xiaocong (2014 : 90-93). Therefore, enhancing the self-efficacy of college students can improve their creativity.

Conclusion and Recommendations

1. Study conclusion

Conclusion 1: The hypothesis that the background variables have significant differences in self-efficacy among college students is partly valid. There are significant differences in creativity in gender, grade and major. That is, the study hypothesis H 1 part hold and hypothesis H 2 hold.

Conclusion 2: The relationship between self-efficacy and leadership. The results show that self-efficacy of college students has a significant positive effect on creativity, and H 3 is assumed. That is, the higher the self-efficacy of college students, the higher the level of creativity.

2. Study recommendations

Create an environment and atmosphere conducive to improving creativity

First of all, when carrying out teaching, practice and campus cultural activities, the school should vigorously publicize, encourage and commend the student behavior that promotes creativity. Secondly, the school capital investment is inclined to the activities about creativity, so as to stimulate the students' creative motivation. Again, according to the analysis of factors affecting creativity, creative students are given the autonomy to create a relaxed and pleasant creative environment for creativity, so that students are convinced that the school and teachers will not restrict their creative behavior, but also give them appropriate encouragement and reward. At the same time, when carrying out club activities, creative elements should be added, and more campus cultural activities about creativity promotion should be carried out, so that students can realize that the school attaches great importance to the improvement of college students' creativity.

Improve students' self-efficacy

Second, improve students' self-efficacy of their own creativity level. For scientific and technological innovation activities such as "Challenge Cup", we should guide, encourage, praise and practice more, so as to improve students' self-efficiency of their successful creative behaviors, so as to be more willing to invest more time, energy and action in activities to improve creativity. Secondly, give students enough time to carry out creative activities. Otherwise, it will lead to students 'creative motivation and creative behavior, but no creation

results, which will hurt students' creative motivation and behavior to varying degrees, which is not conducive to the promotion of creativity.

Cultivate students with a good sense of social responsibility

In the teaching and management of students, we should increase the sense of responsibility education, so that students can realize the importance of serving the society and the people, because the progress of human society and the improvement of people's living standards need creativity. Only by constantly improving their creativity, can there be more opportunities and ways to serve the society and the people.

Expand the scope of the study

There are many factors affecting college student creativity, but this study is limited to study the relationship between self-efficacy and creativity. As for other possible influencing factors, such as creative motivation, social responsibility, work input, social support, and campus culture, they were not included in this study.

Innovative research methods

This study adopts the methods of literature research, questionnaire survey and data statistical analysis. Whether the questionnaire survey can reflect the students' real creativity situation may affect the scientific nature of the research results. Using qualitative research methods, such as case study methods, may make the research results more objective and valuable.

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