

*Full Length Research Paper*

# **The relationship between innovative self-efficacy and innovative ability of dance majors' students in Chinese Universities research**

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**The cultivation of innovative ability is an important part of China's current long-term education planning and innovative development-driven strategy, as well as an important issue of university teaching reform. The cultivation of innovative ability of dance professionals in colleges and universities is a problem of great concern for dance majors in terms of innovative teaching and new curriculum reform. The purpose of this study is to analyze the relationship between innovative self-efficacy and innovative ability of dance majors, as well as the gender differences between the two. Through a questionnaire survey of dance majors in 6 universities in central China, 565 valid questionnaires were collected, and the relationship between variables was tested by difference analysis and Structural Equation Model model. The research results show that there are significant differences between genders in terms of innovative self-efficacy and innovative ability of dance majors; the innovative self-efficacy of dance majors has a positive impact on their innovative ability.**

**Key words:** Dance majors' students, innovative self-efficacy, and innovative ability.

## **INTRODUCTION**

Higher education plays a central role in disseminating the latest knowledge and promoting innovation growth. Colleges and universities are the source of innovative information and an important provider of innovative talents. They promote innovation and train future innovators by teaching skills through courses (Biasi et al., 2020). Today's higher education in dance not only emphasizes technical performance but also conveys a higher level of artistic expression and innovation, and

students are expected to develop the dance skills and creative abilities needed to face the challenges of the future (Sööt and Viskus, 2014). Innovation was first introduced in the field of management as the ability of organisations to adopt new ideas, implement new technologies and develop new products (Burns and Stalker, 1961), and Csikszentmihalyi (1999) proposed that the innovative ability needs to be understood in specific fields (such as literature, art, music, or physics).

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It is not only the individual's capacity for artistic innovation that is enhanced by artistic training, but also the multiple cognitive foundations that lie behind this capacity, which, as an overarching concept, is often largely seen as the depository of artistic activities such as dance, music, theatre and art. And dance experience is closely related to certain aspects of creative work, such as sensory perception, spatial perception, imagination and self-regulation (Bond and Deans 1997; Bond 2001). In relation to dance innovation, Bergmann (1995), states that the expression of emotion through movement is the basis of innovative dance and defines dance innovation as the expression of the inner self through movement. When dance education is reinforced by an innovative thinking environment, developing the creative potential of each student is what satisfies a complete education (Schupp, 2014) and can also have additional positive effects on it, which include: 'critical thinking' 'dealing with ambiguity and complexity' " and "integrating multiple skill sets" among other positive skills (Petrie, 2020). As future practitioners of dance skills in society, implementers of dance education and purveyors of the art of dance, university dance students need to have a certain level of creative awareness, thinking and ability in order to better perform these roles and play an active role, which is a fundamental requirement of university dance education.

Self-efficacy has a very important impact on students' ability to express and innovate, especially in the academic environment (Stone and Hess, 2020), as a determinant of motivation (Van et al., 2011), and also a key indicator in the evaluation standard of dance education. Motivation can potentially engage students in dance learning with clear goals, and their dance self-efficacy encourages them to set better goals for learning and practising dance performance (Kane et al., 2013). Tierney and Farmer (2002), based on the idea of domain-specific self-efficacy research, combined with innovation theory in "The concept of 'innovation self-efficacy' was explicitly introduced on the basis of 'self-efficacy' and showed that innovation self-efficacy has a positive impact on innovation. The subjective assessment of an individual's level of beliefs about his or her own innovation efficacy is an important indicator of an individual's willingness to engage in innovative activities (Bandura, 1997), and students with high innovation self-efficacy are motivated to gather task-related information, think outside the box, view problems from different perspectives, and come up with innovative ideas (Deci and Ryan, 1987).

Oldham and Cummings (1996) suggests that an individual is more innovative if he or she has innovative personal traits. Students with innovative self-efficacy are able to sustain their efforts, face difficulties and pressures with a positive attitude, and proactively seek resources to solve them (Tierney and Farmey, 2002). Students can increase their self-efficacy and motivation in order to maintain their enthusiasm for dance, and by increasing

their creative self-efficacy, they can promote demonstrated performance in creative activities (Mainwaring and Krasnow, 2010).

Wu et al. (2021) in a study on gender and innovation, it was pointed out that there were significant differences in the impact of different genders on innovation, Shinnar et al. (2014) also found that there are significant differences between men and women in the study of innovation education. Some studies believe that compared with men, women usually lack confidence in their creativity and the quality of creative products (Karwowski, 2011). On the contrary, Reis and Holinger (2021) believes that women have strong innovation self-efficacy, which stems from their love and passion for the selected work. Women actively work hard and overcome obstacles to achieve high-level innovation. In the field of colleges and universities, women seek environmental conditions to enable them to focus on innovation tasks. Women with great innovation ability have strong innovation self-efficacy, desire to develop their intelligence, innovation ability, art or leadership ability, and focus on hard work (Reis, 2021). In summary, this study intends to investigate the differences in creative self-efficacy and creative ability among dance undergraduates of different genders, leading to the hypothesis that:

H1: Significant gender differences in creative self-efficacy among dance undergraduates

H2: There are significant differences in innovation ability between different genders of dance majors

Innovation ability is a necessary condition for the development of everything, and the influencing factors of innovation self-efficacy are recognized and promoted (Raihan and Uddin, 2023). Thomas (2021) argues that innovation self-efficacy is a powerful precursor to idea generation and facilitates the creation of innovation, that the innovation process is fraught with obstacles and that individuals who are confident in their ability to innovate should be more motivated to engage in innovation generation and that they expect to perform well in the innovation process (Anderson et al., 2014). Bandura (1997) suggests that innovation self-efficacy has a stronger explanatory power than general self-efficacy for innovation outcome variables. This is supported by the findings that innovation self-efficacy has a significant impact on innovativeness when explained by subjective beliefs and evaluations of innovativeness outcomes (Tierney and Farmer, 2002; Hsu et al., 2011).

In the field of educational research, Deci and Ryan (1987) proves that students with high innovation and self-efficacy should actively collect task-related information, break the thinking pattern, look at problems from different perspectives, and put forward innovative ideas. Beghetto (2006), taking a sample of 1322 students, considering the relationship between students' confidence in their academic ability and academic achievements, it verified

the relationship between different innovative self-efficacy and students' confidence in academic ability, and behaviors inside and outside the classroom. The study found that students with high innovation self-efficacy are more confident in their academic research ability in all disciplines; students with high innovation self-efficacy are more positive about their academic ability in all disciplines and take more part in after-school academic and team activities conducive to innovative research and practice. Dance major teaching requires students to develop their own thinking and creativity through repeated training of professional skills (Sims and Erwin, 2012; Soot and Leijen, 2012). There is a positive correlation between innovation self-efficacy and the innovation ability of art college students. It can be seen from the examples of many artists that highly creative art works are often considered to be unconventional. Only by showing a high degree of self-belief can they be optimistic about all kinds of doubts and obstacles and achieve success.

In view of the previous research and practice results, this study believes that innovation ability is an important part of dance teaching, and innovation self-efficacy is an important cause affecting the innovation ability of dance students. The innovative self-efficacy of college students majoring in dance will have a positive prediction effect on their own creativity, so the hypothesis is proposed:

H3: Innovative self-efficacy of dance majors has a significant positive impact on innovative ability

In previous studies, it has also been found that there are few studies on the impact of innovative Self-efficacy on innovative ability of dance majors, and the research in this field focuses on qualitative research, and the relevant variables involved in the research are many, and the results obtained are different (Kuh, 2003). Most of the four learning systems applied to dance education have no quantitative data for evaluation. Although a few studies have evaluated the system using questionnaires or interviews based on more subjective evaluation, there is still a lack of quantitative data (Dania et al., 2011; Hsia et al., 2016). This also leads to the diversity and complexity of the innovation ability of Chinese college students. In particular, the research on the current situation of the innovative ability of Chinese dance majors is urgent to be supplemented and improved. Therefore, this study takes the dance majors in colleges and universities in central China as the subjects, and attempts to use quantitative methods to study the factors that affect the innovative ability of dance majors.

In conclusion, innovation self-efficacy is helpful to the development of college students' innovation ability. This study attempts to analyse whether there is a significant difference between genders in terms of the influence of innovation self-efficacy on the innovation ability of university students, and aims to investigate the

relationship between innovation self-efficacy and innovation ability of university dance students in Chinese universities. It is hoped that the study will provide reference and help for future research related to the development and promotion of dance major education in Chinese universities, as well as the scientific and rational development of talent training programme plans.

## METHODOLOGY

### Research framework

Based on the research motivation, purpose and analysis of the above documents, this research framework is designed to sort out the gender differences in the impact of dance majors' innovative self-efficacy and innovation ability, as well as the relationship between innovative self-efficacy and innovation ability of dance majors in Chinese universities. The frame is shown in Figure 1.

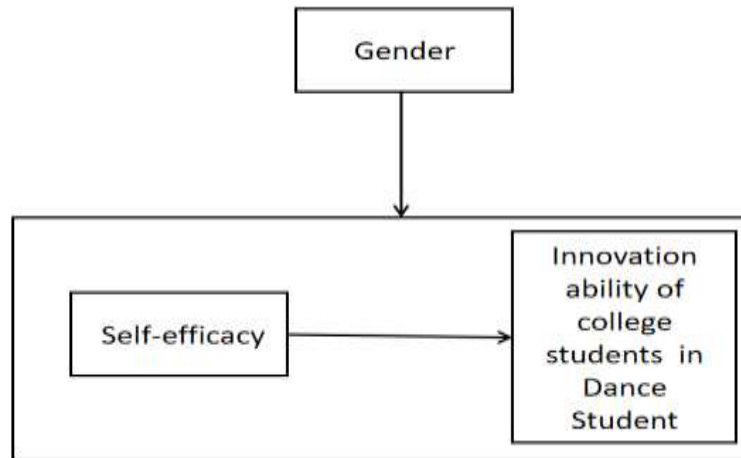
### Research subjects

A questionnaire survey was conducted using a purposive sampling method, taking dance majors in universities and colleges in central China as the research object. First, 122 college students were pre-tested with the questionnaire to test the reliability and validity of each scale, and to test whether it is applicable to the five research samples. 6 universities were selected from the formal survey. Each university distributed 100 questionnaires, a total of 600, and 565 valid questionnaires were recovered. The data of the valid questionnaires were analyzed statistically.

### Research tools

After item analysis, exploratory factor analysis and reliability analysis of the pretest data, the items of the Innovation Self-Efficacy Scale and the College Student Innovation Competence Scale were determined for this study, and the official questionnaire was finalized. To ensure the reliability of the measurement instruments, Cronbach's  $\alpha$  is still used. The coefficient tests the internal consistency reliability of the scale.

According to Cuieford (1965), in this study, CFA for confirmatory factor analysis was used to test the construct validity of the questionnaire. Hu and Bentler (1998) systematically explored the performance of fit indices under different estimation methods and different distributions, using SRMR, and a combination of seven indices such as NFI, IFI, RNI and CFI to determine model fit, which will also be considered in this study. Other fit indices (RMR, SRMR, CFI, IFI, PNFI, PGFI) are also used to assess the fit of the theoretical model to the observed data. The structural validity of the measurement needs to be considered based on the overall fit of the measurement model to the sample data. The CR of a latent variable measures the degree of consistency between observed variables of the same latent variable; a higher CR indicates a higher degree of correlation between the observed variables. A CR value greater than 0.7 is generally considered necessary, although Raine (2000) suggests that a CR of 0.5 is an indication of the stability of the measure. The average variance extracted for a latent variable is the total average variance of the observed variables explained by the latent variable relative to the measurement error; a value of AVE greater than 0.5 indicates that the observed variable is a valid reflection of the corresponding latent variable.



**Figure 1.** Research framework.  
Source: Author

**Table 1.** Reliability and validity of the innovation self-efficacy scale.

Factor name	Item	Standardized regression weights	CR	AVE	Cronbach's $\alpha$
Creative thinking beliefs	XN1_1	0.813	0.812	0.590	0.811
	XN1_2	0.753			
	XN1_3	0.737			
Creative finished product belief	XN2_1	0.733	0.820	0.532	0.820
	XN2_2	0.765			
	XN2_3	0.742			
	XN2_4	0.675			
Anti-negative evaluation belief	XN3_1	0.805	0.832	0.624	0.830
	XN3_2	0.846			
	XN3_3	0.713			

Source: This study

### Innovation self-efficacy scale

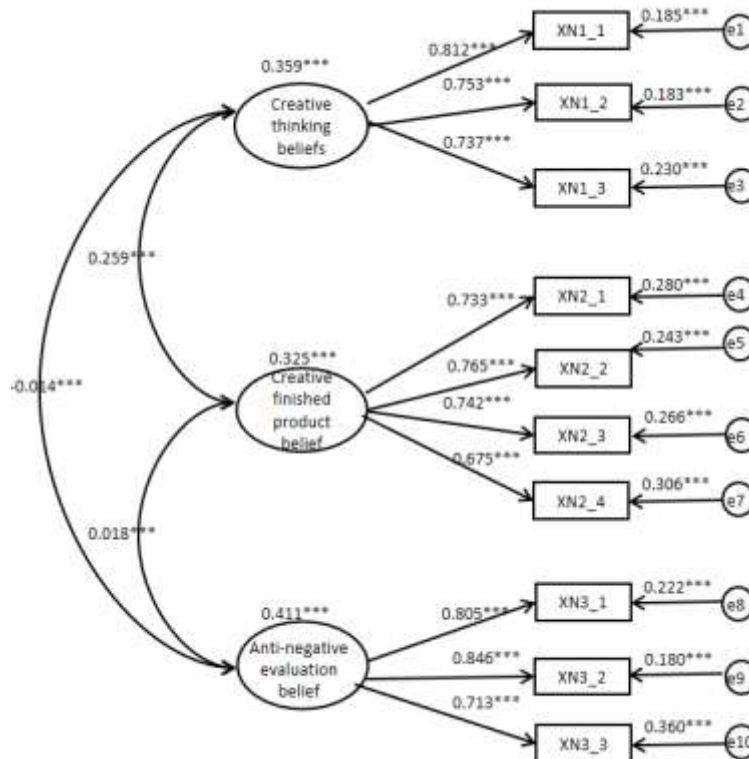
In this study, Chang (2016) revised the 10-question scale of "Students' Sense of Innovative Self-efficacy" compiled by Hong Suping et al. (2008). The scale has been used to measure the innovative self-efficacy of college students majoring in design. It includes three dimensions of creative thinking strategy belief, creative finished product belief and anti-negative evaluation belief, including three questions of creative thinking strategy belief ("When I encounter problems in learning, I believe I can quickly associate with many solutions", etc.), four questions of creative finished product belief ("When I face difficult problems, I believe I can always think of unexpected answers", etc.) Three questions about anti-negative evaluation beliefs ("Even if the teacher does not encourage innovative ideas, I will still think about problems and find different solutions"). Using the Likert-5-point scoring method, the higher the score indicates the higher the innovation self-efficacy. According to the reliability test, Cronbach's  $\alpha=0.811$ , and Cronbach's  $\alpha=0.820$ . Cronbach's  $\alpha=0.830$ , The overall Cronbach's  $\alpha$  value was 0.781, which is greater than the standard value of 0.70, which proves that the scale has good reliability in this study. Using confirmatory factor analysis, the scale has a factor load range of

0.677 to 0.846; CR values were 0.812, 0.820 and 0.832 respectively, all of which were greater than 0.7; AVE values are 0.590, 0.532 and 0.624 respectively, all greater than 0.5, indicating that the scale has good validity, as shown in Table 1 and Figure 2.

According to Table 2, RMR = 0.017, SRMR = 0.029, IFI = 0.983, CFI = 0.983, PNFI = 0.691, and PGF=0.568. Therefore, all the fit indicators of the innovative self-efficacy scale in the formal questionnaire of this study met the test criteria, indicating that the model has a relatively good fit.

### College students' innovation ability scale

The innovation ability of dance majors is measured by the innovation ability scale developed by Zhou and George (2001). The scale is a single-dimension scale, which contains 13 questions, such as "I will have many innovative ideas", "I am not afraid of taking risks", "I will make detailed plans and arrangements for implementing new ideas". Using the Likert-5-point scoring method, the higher the score, the higher the degree of innovation ability. Through the reliability detection, According to the reliability test, Cronbach's  $\alpha=0.958$ , which is greater than the judgment standard



**Figure 2.** Innovative self-efficacy CFA.  
Source: Author

of 0.70. Using confirmatory factor analysis, the scale has a factor load range of 0.722 to 0.859; The CR and AVE values were 0.958 and 0.676 respectively, which exceeded the evaluation criteria, indicating that the validity of the scale was good, as shown in Table 2 and Figure 3.

According to Table 3 and Table 4, the fitting indexes of innovation self-efficacy and innovation ability Scale RMR, SRMR, IFI, CFI, PNFI, and PGF met the test criteria, indicating that the fit degree of the model was relatively good.

## RESULTS

In this study, Harman single-factor test was used to test the inter-variable CMV. The result shows that the interpreted variance of the first common factor with the characteristic value greater than 1 is 40.059%, which means that the error of the same source does not affect the data result, so it is presumed that there is no serious CMV problem.

### Difference analysis

This study used convenient sampling to distribute 600 questionnaires to dance majors in six universities in central China, and recovered 565 valid questionnaires, with an effective rate of 93.08%, including 198 male students (35%) and 367 female students (65%). The

dimensions of innovation self-efficacy and innovation ability of dance majors of different genders are shown in Table 5.

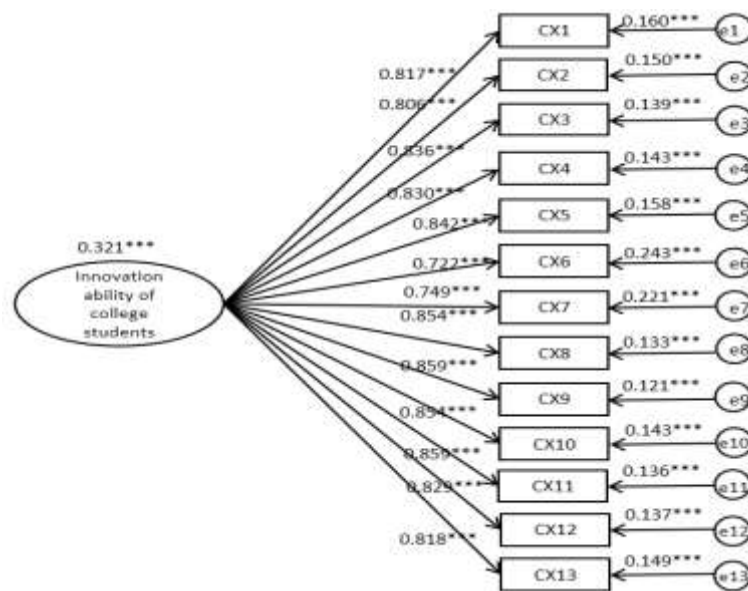
Among the total number of people, the average value of "college students' innovation ability" is the highest (3.841), and the average value of "creative finished product belief" in innovation self-efficacy is the lowest (3.551). This study uses independent sample t-test to test whether there are significant differences between the sexes of dance majors in terms of innovation self-efficacy and innovation ability. Through the analysis of the sample data by independent sample t-test, it can be seen from Table 5 that the variance of each sample of innovative self-efficacy and innovative ability is not the same ( $p < 0.001$ ;  $p < 0.01$ ;  $p < 0.05$ ), and there is significant difference between the sexes of dance majors in terms of innovative self-efficacy and innovative ability:

a) There are significant differences in the dimensions of creative self-efficacy between college students' genders, among which the t value of creative thinking belief is 9.958 ( $p < 0.001$ ), the t value of creative finished product belief is 13.179 ( $p < 0.001$ ), and the t value of creative self-efficacy is 9.870 ( $p < 0.001$ ). Because the variance of each sample is different, the comparison of the average shows that the gender of dance majors is significantly higher than that of girls in all dimensions of innovative self-efficacy;

**Table 2.** Reliability and validity of the innovation ability scale for college students.

Factor name	Item	Standardized regression weights	CR	AVE	Cronbach's $\alpha$
Innovation ability of college students	CX1	0.817	0.958	0.676	0.964
	CX2	0.806			
	CX3	0.836			
	CX4	0.830			
	CX5	0.842			
	CX6	0.722			
	CX7	0.749			
	CX8	0.854			
	CX9	0.859			
	CX10	0.854			
	CX11	0.859			
	CX12	0.829			
	CX13	0.818			

Source: This study.



**Figure 3.** Innovation ability of college students CFA.  
Source: Author

**Table 3.** Model fit of the innovation ability scale.

Model fit scaling	Index of standard	Statistic	Fits
RMR	<0.080	0.020	all right
SRMR	<0.080	0.041	
IFI	>0.900	0.904	
CFI	>0.900	0.904	
PNFI	>0.500	0.753	
PGFI	>0.500	0.584	

Source: This study.

**Table 4.** Validation factor model fit of the innovative self-efficacy scale.

Model fit scaling	Index of standard	Statistic	Fits
RMR	<0.080	0.017	
SRMR	<0.080	0.029	
IFI	>0.900	0.983	
CFI	>0.900	0.983	all right
PNFI	>0.500	0.691	
PGFI	>0.500	0.568	

Source: This study.

**Table 5.** Analysis of the average and standard differences of college students' gender in various variables (n=565).

Item	Total (n=565)		Male(n=198)		Female (n=367)		t	p
	M	SD	M	SD	M	SD		
Creative thinking beliefs	3.738	0.510	3.998	0.434	3.597	0.493	9.958	0.000
Creative finished product belief	3.551	0.533	3.894	0.431	3.366	0.490	13.179	0.000
Anti-negative evaluation belief	3.747	0.531	4.017	0.452	3.602	0.514	9.870	0.000
Innovation ability of college students	3.841	0.442	4.058	0.420	3.724	0.408	9.520	0.012

Source: This study.

**Table 6.** Correlation analysis of each variable.

	Creative thinking beliefs	Creative finished product belief	Anti-negative evaluation belief	Innovation ability of college students
Creative thinking beliefs	1			
Creative finished product belief	0.675***	1		
Anti-negative evaluation belief	0.504***	0.586***	1	
Innovation ability of college students	0.655***	0.635***	0.647***	1

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

Source: This study.

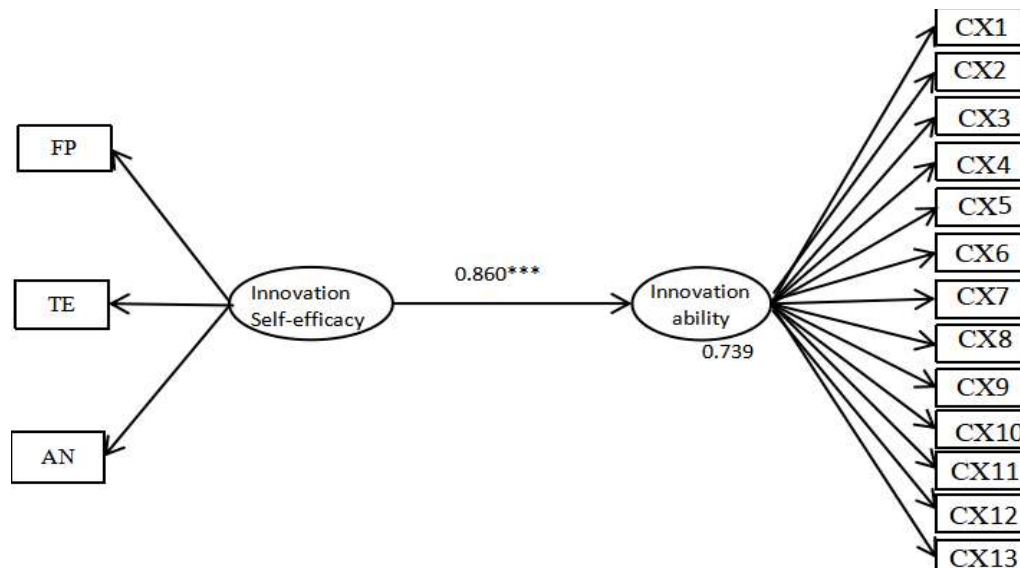
b) There is a significant difference in the innovation ability between the sexes of dance majors, with a t value of 9.520 ( $p < 0.05$ ). Because the variance of each sample is different, the average is compared. It is found that the gender of dance majors is also significantly higher than that of girls in terms of innovation ability.

Therefore, in terms of gender, boys are significantly higher than girls in terms of "belief in creative thinking", "belief in creative products", "belief in anti-negative evaluation" and "innovation ability of college students".

### Correlation analysis

Table 6 shows the Pearson correlation coefficient matrix between the variables involved. The correlation

coefficients reflect the degree of linear correlation between the variables and allow a preliminary judgment to be made on the validity of the hypotheses proposed in the study. The correlation analysis was used to test the relationship between creative self-efficacy and creative ability of dance students, and the results showed that there was a significant correlation between the dimensions of innovative self-efficacy and innovative ability of university students, with correlation coefficients ranging from 0.504 to 0.675, with p-values less than 0.001. In addition, the correlation coefficients between the variables were no greater than 0.8, indicating that there was no co-linearity, which also indicated that there was a correlation between the variables correlation exists and the relationship between the variables can be carried out in the next step.



**Figure 4.** Model of the effect of innovation self-efficacy on college students' innovation ability.  
Source: Author

### Structural Equation Model (SEM)

On the basis of relevant theories and literature review, this paper proposes that innovation self-efficacy has a positive and direct impact on college students' innovation ability, and uses structural equation model (SEM) to analyze it. Figure 4 shows the corresponding structural equation model. Figure 4 show that innovation self-efficacy has a significant positive impact on college students' innovation ability. The standardized path coefficient is 0.860, ( $t=16.499$ ,  $p<0.001$ ), and the explanatory amount is 0.739. This means that innovation self-efficacy demonstrates faith in the innovation process and its outcomes, which promotes the development and performance of college students' innovation capabilities (Newman et al., 2018).

## DISCUSSION

### Gender differences in innovation self-efficacy

The results of this study show that there are significant differences between the genders of dance majors in the dimension of innovation self-efficacy. This finding is different from Shinnar et al. (2014), who found no significant gender differences in higher education, as well as ReisandHolinger (2021), who found that girls were significantly higher than boys in terms of innovative self-efficacy. This study found that there were gender differences in the innovative self-efficacy of dance majors, with boys having higher scores than girls in creative thinking beliefs, creative finished product beliefs, and anti-negative evaluation beliefs. The results show

that boys have higher creative thinking beliefs, more clear innovation attempts and intentions in the field of dance majors, are more willing to accept challenging tasks, and are better at thinking and using the knowledge and skills acquired to get better solutions through various channels and means to stimulate their own innovation potential. In terms of faith in creative finished products, boys show higher self-confidence than girls, and the knowledge and skills gained in learning make them more confident. In learning, boys can find the fun of innovation and use active exploration behavior, believing that the innovation results displayed through their own efforts will achieve the expected results. Furthermore, boys are significantly better than girls in terms of anti-negative evaluation beliefs. Even if the people around them do not accept their original innovative ideas or works, boys can still adhere to their own ideals, ideas, and practices, showing a greater resistance to external influences than girls.

### Gender differences in innovation ability

The research found that there is also a significant gender difference in the innovative ability of dance majors. Girls are significantly lower than boys. The research results are similar to the past (Cheung and Lau, 2010; Baer and Kaufman, 2008). First of all, boys are more active in thinking and are more willing to explore unknown things.

Their thirst for knowledge and heterosexuality are stronger than girls. They like to be unbound and free from the broader fields beyond the knowledge they have learned. They are good at using new methods, new technologies and new ideas to improve their academic quality; boys are more practical than girls. Boys can find



problems, flexibly solve problems from other angles, and make detailed plans and arrangements. This process continues to deepen, and ultimately can produce innovation. The manifestation of gender differences in the innovative ability of dance majors may be caused by physiological differences. At the same time, family education and school education, along with the growth of college students, will also become the main factors that cause the gender differences in the innovative ability of dance majors. In addition, the major teaching form of dance professional skills courses in colleges and universities is mostly male and female classes, providing environmental conditions for the formation of gender differences in innovative ability.

### **The influence of innovation self-efficacy on college students' innovation ability**

As expected in this study, innovative self-efficacy of dance majors has a positive impact on innovative ability, and the results confirm the findings of Beghetto (2009) that innovative self-efficacy has a significant positive impact on innovative ability of college students. Specifically, if students can quickly think of many different or new solutions when they encounter problems, and can try to solve problems with new methods, their creativity will be enhanced. That is to say, students with higher creativity will be able to come up with more different ideas or unexpected answers than ordinary students, and will be more willing to try new methods. Research has demonstrated that innovation self-efficacy has a significant impact on innovation ability (Hsu et al., 2011). Dance students are motivated by their training goals, are able to use their professional knowledge and original ideas to create innovative works, and are constantly pushing forward the process of innovation, thus demonstrating a strong capacity for creativity. Dance majors have been found to be more confident and satisfied with their creative behavior, as they are able to effectively utilize their individual creativity, actively seek solutions to any problems that arise, have faith in their ability to accomplish their creative ambitions, and take pride in presenting the work they have created. Furthermore, those with a high level of innovation self-efficacy demonstrate an optimistic and confident evaluation of their expertise in the field of dance, and are capable of taking part in a variety of activities that contribute to their innovation (Choi, 2004; Gong et al., 2009).

This study has once again demonstrated a significant positive correlation between innovation self-efficacy and innovation ability, with students who rate themselves higher in terms of innovation self-efficacy showing greater innovation ability and performing better in the actual process of innovation. Dance undergraduates tend to possess a strong sense of innovation self-efficacy, which

allows them to use innovative approaches to solve problems, stand by their ideas in the face of challenge, and remain steadfast even when encountering difficulties, thus increasing their level of innovative ability. This result establishes the key role of innovation self-efficacy on the innovation ability of university students and indicates that the development of university students' innovation ability depends on the individual.

### **CONCLUSIONS AND SUGGESTIONS**

The purpose of this study is to better understand the relationship between innovative self-efficacy and innovative ability among college students majoring in dance, with a particular focus on the differences between males and females. Results indicate that males are significantly higher than females in all aspects of innovation, exhibiting more ideas, greater willingness to accept different opinions and suggestions, and a greater willingness to try out new methods to solve problems. Boys are better than girls at reflecting and associating on the basis of existing knowledge and experience, coming up with opinions and ideas different from conventional ones, and having the ability to solve problems innovatively in practice. Both need to encourage dance professional girls to adapt to the new environment by accepting new things, actively practicing, being good at reforming around things and developing an inventive mindset. Since girls' perceptual thinking is relatively rich, they should be exposed to more team-based learning, and focus on cultivating their innovation self-efficacy and expressing their innovative abilities. This will help them strengthen their understanding of their innovative capabilities and improve their ability to present it.

The results of this study show that there is a significant positive relationship between dance students' innovation self-efficacy and innovation ability. Therefore, in order to better promote the innovation ability of university students in the field of university dance majors, it is essential to establish the teaching concept of "student as the main body", encouraging students to be brave in developing and practicing, and to be proficient in showcasing their artistic works, in order to achieve continual improvement in their innovation ability. Dance students should be guided by the school's training objectives and innovation policy, use innovative methods, believe in their own ability to produce innovative works, and continue to promote the process of innovative activity, depending on their level of theoretical knowledge and overall quality.

Colleges and universities not only shoulder the responsibility of teaching and educating people, but also undertake the mission of cultural inheritance and innovation. The national standard for the teaching quality of dance major in colleges and universities requires that "dance major college students need to have: basic professional ability, artistic appreciation ability, artistic

practice and innovation ability. "Among them," innovation ability" proposes: on the basis of knowledge and skill accumulation, it can reflect creative thinking in learning and practice, and actively make new attempts; it can think, design, plan and summarize artistic innovation. In the face of the social demand for dance professionals, college students should first enhance the ideological and political value of the courses. Should master China's socialist literary policy and policy, various, multi-level enhance students' patriotism, in the process of discovery, understanding, practice, really into society, understand scientific and cultural knowledge, dance teaching, creation and performance and so on various aspects of the basic theoretical knowledge and professional skills, the formation of scientific and advanced discipline concept. Secondly, college students should set up innovative ideas during their study period. On the one hand, all kinds of activities held inside and outside the school are possible for students to actively participate in social practice to improve their social practice ability, enhance their awareness of innovation, and cultivate students' innovation ability. On the other hand, we can fully understand the development of The Times, and with the help of the short video platform, we can combine professional knowledge with innovative practice to fully improve the innovation ability.

### CONTRIBUTIONS AND LIMITATIONS

Through the analysis of the innovative ability of college students, this study can enable the school to fully and deeply understand the current situation of the innovative ability of dance majors and the problems in the process of cultivating innovative ability, and give practical and effective suggestions for the problems encountered, so as to provide more accurate information for improving the innovative ability, so as to help the school to formulate a practical education reform plan. Innovative self-efficacy is an important factor in determining the innovative ability of dance majors. Empirical analysis can be used to explore its impact on the innovative ability of dance majors. Through this analysis, it can be concluded that the curriculum content of innovative ability education for dance majors should be set according to different genders in order to cultivate the innovative self-efficacy of college students. In addition, it can also be concluded that having full confidence in one's own innovation in learning can help to enhance the innovative ability of dance majors.

In order to improve college students' abilities to innovate and cope with the increasing need for innovative talents, I remain confident in my ability to complete tasks innovatively, even when the results of my innovation are questioned and opposed.

The results of a questionnaire survey and data analysis of dance majors from six universities in China suggest that there is a significant relationship between innovative

self-efficacy and innovative ability among these students. Future research can increase the number of samples, compare between different regions, dance skill levels, and school levels, and explore the differences of other background variables in the innovation self-efficacy and innovation ability of dance majors; Through qualitative research such as experiments and interviews, observe the relationship between innovation self-efficacy and innovation ability, so as to benefit more dance majors and provide strong support for the improvement of innovation ability of college students.

### CONFLICT OF INTERESTS

The authors have not declared any conflicts of interests.

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