

The Relationship Between Self-Efficacy, Peer Support and Academic Performance Among College Students Majoring in Dance in Changsha City, China

Pi Qing and Puteri Roslina Binti Abdul Wahid

Abstract --This study explored the relationship between self-efficacy, peer support and academic performance among college students majoring in dance in Changsha City. Based on self-efficacy theory and social support theory, the following hypotheses were proposed: (1) self-efficacy has a significant positive effect on academic performance; (2) peer support has a significant positive effect on academic performance; and (3) peer support plays a positive moderating role between self-efficacy and academic performance, i.e., self-efficacy has a stronger effect on academic performance at a high peer support level. The study used a questionnaire to collect data, and conducted reliability tests, regression analyses, and moderating effect tests. The results showed that self-efficacy significantly predicted academic performance, and that peer support played a positive moderating role in this relationship. The results of the study have important educational implications for enhancing the academic performance of college students majoring in dance.

Keywords – Dance Majors, Self-Efficacy, Peer Support, Academic Performance, Moderating Effect

I. INTRODUCTION

The study of dance is different from other disciplines in that it covers both the mastery of theoretical knowledge and intense practical training. How to enhance the academic achievement of dance students is an important concern for educators. As an indispensable part of higher education, the dance major has important research significance. Academic achievement is an important indicator of the level of knowledge mastered by students (Liang et al, 2020). Nowadays, in a competitive educational environment, there are many factors that affect the academic achievement of college students majoring in dance. The phenomenon of knee injuries in dance training is extremely common in dancers' daily training. Psychological and social factors also play a key role for dance majors. The process of learning dance is often a gruelling journey accompanied by tremendous physical and mental effort and the need to cope with immense physical and psychological stress. Exhaustion, fatigue, aches and pains and muscle strain at the physical level become inevitable challenges for learners.

Influencing academic achievement from internal factors, Yang (2023) and Gong (2023) concluded that there is a significant relationship between self-efficacy and academic achievement. Self-efficacy (SELF-efficacy) refers to an individual's beliefs about his or her ability to

succeed in a task (Bandura, 1997). Students with high self-efficacy are more confident and willing to put in effort in their studies and therefore tend to achieve better academic results (Zimmerman, 2000). In terms of external influences, Hou et al (2018) took adolescents as the subject of their study and found that peer learning strategies can positively influence student achievement. Peer support (Peer Support) is an important social factor in professional dance learning. Since dance learning requires a lot of teamwork, such as rehearsals and stage performances, academic support, emotional encouragement, and cooperative learning among peers are especially important. Peer support not only directly affects academic performance, but may also enhance students' self-confidence, which in turn improves academic performance (Wentzel, 2005). This study focuses on college students majoring in dance in Changsha, Hunan Province, and discusses the relationship between their self-efficacy, peer support, and academic achievement accomplishments.

II. PROBLEM STATEMENT

Zheng (1999) Academic performance is an important indicator of students' learning outcomes, especially for college students majoring in dance, who need to have a solid theoretical foundation in addition to professional skills. However, academic performance is influenced by a variety of psychological and social factors. Among them, self-efficacy, i.e., an individual's belief in his or her ability to accomplish academic tasks, is widely recognized as an important factor affecting learning outcomes. In addition, peer support plays a key role in students' academic development by providing emotional support, information exchange, and academic motivation. Although there has been a significant amount of research exploring the role of self-efficacy and peer support in general educational settings (Li, 2024), relevant empirical studies for dance students are still relatively limited. Dance education is unique in that it requires students to possess both high physical fitness and theoretical knowledge, making it particularly important to understand the relationship between self-efficacy, peer support, and academic performance. In addition, whether peer support plays a moderating role in the relationship between self-efficacy and academic achievement needs to be further investigated.

III. LITERATURE REVIEW

Vongkulluksn (2020) believes that academic achievement is an assessment of the knowledge and skills acquired by students through long-term efforts. Good

Pi Qing, phd Student City University, Malaysia (Email address: 690232594@qq.com)
Puteri Roslina Binti Abdul Wahid, City University, Malaysia
(Email address: dr.roslina@city.edu.my)

academic achievement is not only conducive to the realization of a virtuous cycle in the development process of individuals, but also an important factor in eliminating the intergenerational transmission of poverty (Wang & Zhao, 2022), so it is significant to analyze the influencing factors of academic achievement. While intrinsic motivation is important, students also need external support when pursuing their goal of improving academic achievement. Peer support is an important part of social support and plays a key role in students' academic achievement. Social support is a key environmental component that contributes to students' success in achieving their goals and has become the most consistent predictor of academic achievement in current research. Previous research has shown that perceived social support, an internal positive psychological reality that serves as an actual variable that influences a person's external behaviour and long-term development, is more predictive and functional than actual social support, and is consistent with an individual's overall effect on social support (Robbins et al., 2004).

Previous researchers and scholars, who studied the factors affecting academic achievement, mainly focused on individual and external factors. Wang & Liu (2000), Zhang & Shen (2005), Yu et al (2018) concluded that students' own internal motivation for learning has a significant impact on individuals' academic achievement. Zeng (2009), based on Bandura's theory of self-efficacy believed that self-efficacy has an impact on students' academic achievement, and self-efficacy can influence learning behaviours by affecting students' psychology. Wu & Wang (2017) pointed out that the emotional intelligence of college students doesn't directly affect students' academic achievement, and there is an indirect effect. Research on the influence of external environment on academic achievement can be divided into two main aspects: family factors and school factors. Liu (2012) found that the school environment can only be realized through the promotion of students' participation, which indirectly achieves the development of students' qualities and abilities through the study of the factors affecting learning gains. This is because student participation is an active behaviour, which requires not only the support of teachers, parents and peers, but also the enthusiasm of the students themselves. It is based on student participation that the role of the environment in students' academic achievement is realized.

The term "peer" refers to a person of similar age, status or ability, but does not represent only a fixed individual, but rather a group of people with the same socio-cognitive abilities in a social organization that can be physically contacted with less differences in age (Foot, 1975). Peer support is a system of mutual respect, knowing how to share with peers and give help to each other, and this system is mainly implemented through support, friendship, and sharing of responsibilities. Loneliness and depression are conditions that are often encountered by adolescents and these conditions can be gradually alleviated in this type of support (Solomon, 2004). Peer support is material assistance or emotional care and companionship between people of similar age, social status, or experience, which contributes to an individual's development and adjustment (Larry, Chyrell, Kimberly, & Rebeck, 2012). Wentzel et al

(2017) consider peer support as the help that an individual needs to accomplish a certain task, and this help is expressed by material emotions. And after getting help, they will take the role of supporter to carry out a way to support other partners. Peer support plays an integral part in daily life, both emotionally and materially. In past studies, peer support has been shown to be positively correlated with students' academic achievement (Burke & Sass, 2013; Wentzel et al, 2017). Burke & Sass (2013) found that peer support had a significant effect on students' academic achievement. In summary, the existing relevant studies show a correlation between peer support and academic achievement.

There are many definitions of self-efficacy, with the main components being job competence, job content, and self-competence. Self-efficacy refers to a subjective evaluation of an individual's ability to demonstrate competence at work, an evaluation of one's own self-efficacy to engage in a particular activity (Bandura 1977; Wang & Huang, 2022). Bandura (1986) stated that the competencies and skills needed by individuals in each different domain vary from person to person, so each domain should have different self-efficacy, such as career decision-making efficacy, academic self-efficacy, emotion regulation self-efficacy, etc. according to Honicke and Broadbent (2016), students' academic self-efficacy is the ability of an individual to maintain a certain level of self-perception in the face of academic stress and is closely related to the students' academic performance. Liang (2000) emphasized that academic self-efficacy is an individual's judgment and confidence in his or her ability to successfully complete academics. In this study, academic self-efficacy is defined as an individual's subjective evaluation of his/her ability to successfully complete his/her studies and his/her sense of control over his/her own learning behaviours in the face of academic pressure during the learning process.

IV. RESEARCH METHODOLOGY

Research Design

This study adopts a cross-sectional quantitative research design, aiming to explore the relationship between self-efficacy, peer support and academic performance among college students majoring in dance in Changsha, China. The study collected data through random sampling method and obtained 150 valid questionnaires from college students majoring in dance in Changsha, Hunan Province. The purpose of using this research design was to measure the correlation between the variables at a specific point in time so as to provide data support for the research hypotheses. A detailed description of each scale and measurement tool used in the study is provided below.

Measurement

The Peer Support Scale Mostafaei & Hosseinneshad developed by Mostafaei and Hosseinneshad was used in this study (Burke & Sass, 2013). The scale consists of 22 items divided into two main dimensions: the first one is

Emotional Support consisting of 10 items that measure the emotional care and support students receive from their peer relationships, such as understanding, encouragement and warmth. The internal consistency index (Cronbach's α) for this dimension was 0.851, indicating good reliability. The second is instrumental support which includes 12 items, mainly assessing the practical help students receive from their peers in their study and life, such as study materials, suggestions for solving problems, and so on. The Cronbach's α for this dimension is 0.768, which also indicates that it has high reliability (Wills et al., 1992).

Students' academic performance was measured through four dimensions, specifically: academic performance, students' performance in course work. Interpersonal Facilitation, the support and motivation students receive in their interpersonal interactions. Learning Ability, the student's demonstrated ability and potential in the learning process. Objective performance, students' achievement as reflected through assessments and examinations. The scale was used in this study to assess the above four dimensions. The internal consistency (Cronbach's α) of the scales were all greater than 0.7, indicating high reliability and measurement accuracy (Wang & Huang, 2022).

This study used Liang Yusong's modified academic self-efficacy questionnaire, which has 22 items and two dimensions, including 11 items for self-efficacy in learning ability and 11 items for self-efficacy in learning behaviour (Liang, 2000). The questionnaire was scored on a 5-point Likert scale, with 1-5 ranging from completely disagree to completely agree, and reverse scoring questions. Higher scores indicate higher levels of academic self-efficacy among college students. The Cronbach's alpha coefficient of this study is 0.88, and the internal consistency coefficient is good.

Research Procedures and Data Processing

To collect the data needed to answer the research questions, this study conducted a questionnaire survey between January and February 2025 on the target sample. The questionnaire survey was completed through the online platform "Questionnaire Star", and data were collected from university students majoring in dance in Changsha City, Hunan Province, using random sampling, and 150 valid questionnaires were collected. Before the study was conducted, the researcher communicated with the relevant departments and students and obtained their informed consent. All participation was based on the principle of voluntariness, and the survey was conducted anonymously to protect privacy, thus ensuring the ethical nature of the study and the reliability of the data. After the data collection was completed, the research team comprehensively organized and analyzed the data and used statistical methods to explore the relationship between the variables in order to answer the core questions of the study.

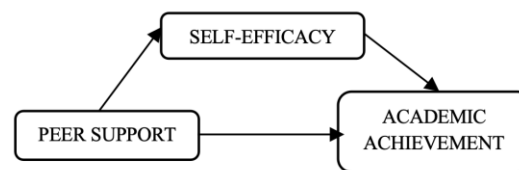


Fig 1. Conceptual Framework

Research hypotheses: 1. Self-efficacy has a significant positive effect on academic performance. 2. Peer support has a significant positive effect on academic performance. 3. Peer support positively moderates the relationship between self-efficacy and academic performance, and the effect of self-efficacy on academic performance is stronger at a high level of peer support.

V. RESULTS

Reliability and Validity

Through the reliability analysis of the survey data as shown in table 1, the self-efficacy, peer support and academic performance scales Cronbach Alpha coefficients were 0.920, 0.982, 0.981 respectively, which were greater than the basic condition of 0.7, and the questionnaire had a strong reliability, i.e., the correlation and consistency between each item of the questionnaire was good, and the reliability of the questionnaire was obtained.

TABLE I: RELIABILITY ANALYSIS

Dimension	Cronbach's	Normalized term-based clone Bach Alpha	Item count
Self-Efficacy	.920	.922	22
Peer Support	.982	.982	22
Academic Achievement	.981	.980	18

Regression analysis

TABLE II: REGRESSION RESULTS OF SELF-EFFICACY ON ACADEMIC ACHIEVEMENT

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	sig.
Constant	.459	.207		2.215	.027
Self-efficacy	.928	.065	.628	14.174	.000

F=200.892; P < 0.001

TABLE III: REGRESSION RESULTS OF PEER SUPPORT ON ACADEMIC ACHIEVEMENT

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	sig.
Constant	2.041	.219		9.320	.000
Peer support	.328	.063	.327	6.081	.000

F=36.979; P < 0.001

TABLE IV: MODERATING ROLE OF PEER SUPPORT BETWEEN SELF-EFFICACY AND ACADEMIC PERFORMANCE

Model	coeff	se	t	p	LLCI	ULCI
(Constant)	3.3108	.0416	79.5418	.0000	3.2289	3.3928
Self-efficacy	.9095	.715	12.7273	.0000	.7689	1.0501
Peer Support	.1736	.0547	3.1734	.0017	.0659	.2812
Interactivity	.1817	.0818	2.2209	.0271	.0207	.3426

F=73.6916; P < 0.001

Regression and moderating relationships were established with self-efficacy as the independent variable, peer support as the moderating variable, and academic achievement as the dependent variable, respectively, to study the relationship between self-efficacy, peer support, and academic achievement variables. It can be seen from the data that both self-efficacy and peer support have a significant positive impact on academic performance. The results of the regression analysis of self-efficacy supported hypothesis H1, while the results of the regression analysis of peer support supported hypothesis H2. In addition, the model including the interaction term showed that peer support played a positive moderating role between self-efficacy and academic performance, which supported hypothesis H3. Therefore, the data verified all the hypotheses, indicating that self-efficacy and peer support not only directly promoted academic performance, but peer support also further enhanced the effect of self-efficacy on academic performance.

VI. CONCLUSION

The findings of this study not only expand the applicability of self-efficacy theory in the field of dance education, but also provide new ideas for enhancing the academic performance of dance students. The findings suggest that the positive impact of self-efficacy on academic performance can be effectively amplified through increased peer interaction, cooperation, and encouragement. This study has important guiding significance for dance educators, students themselves, as well as college teaching management. The first is to enhance students' self-efficacy colleges and universities can boost students' confidence and persistence by setting clear academic goals, providing positive feedback, and encouraging individuals to challenge difficult dance skills. Promoting peer-to-peer learning support, educators can

promote cooperative learning, such as establishing study groups, designing team rehearsals, and encouraging mutual motivation among dance partners, in order to facilitate the sharing of knowledge and skills and enhance the overall learning atmosphere. To optimize the dance education environment, colleges and universities can create more supportive academic and practical environments by improving the curricula of dance majors and adding peer-to-peer assessment mechanisms.

In conclusion, this study verified the mediating role of self-efficacy and peer support on academic performance, and also further revealed the interactive effects of the two, emphasizing the importance of peer support as an educational support.

REFERENCES

- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Burke, M. A., and Sass, T. R. (2013). Classroom peer effects and student achievement. *J. Labor Econ.* 31, 51–82. doi: 10.1086/666653
- Burke, M. A., & Sass, T. R. (2013). Classroom peer effects and student achievement. *Journal of Labor Economics*, 31(1), 51-82.
- Cai, W., & Cao, X. (2019). Value-added Performance and difference analysis of academic achievement of college students in ethnic areas. *Heilongjiang Higher Education Research*, 37(10):18-22.
- Foot, Hugh C, Morgan, Michelle J, & Shute, Rosalyn H. (1975). *Children helping children*. National Elementary Principal (March), 515-516.
- Gong, Q. (2023). A study on the correlation between self-efficacy, self-control and learning burnout among college students majoring in piano. *Central China Normal University*
- Hou, K., Zhang, Y., Xiang, X., & Ren, P. (2018). Peer group socialization for early adolescent Academic achievement: The Moderating role of Perceived School climate. *Psychological Development and Education*, (03),294-303
- Honicke, T., & Broadbent, J. (2016). The influence of academic self-efficacy on academic performance: A systematic review. *Educational research review*, 17, 63-84.
- Liang, Y. (2000). A study of college students' achievement goals, attributional styles and academic self-efficacy. *Central China Normal University*. (04),449-461. <http://doi:10.16187/j.cnki.issn1001-4918.2020.04.08>.
- Li, X., & Yang, N. (2016). Research on the structure of college Students' Academic Achievement Scale:Scale Development and its Reliability Test. *University (Research Edition)*, (03):41-53+40.
- Liu, H., Liu, J., & Lin, S. (2012). Analyzing the model of autonomous participation in university environment Affecting learning gains: An empirical evidence based on the Survey of University of K. Fudan Education Forum, (5).
- Li, N. (2024). An Action Research study to promote peer support in the integrated classroom. *East China Normal University*.
- Mostafaei Alaei, M., & Hosseinneshad, H. (2020). The

- development and validation of peer support questionnaire (PSQ). *Teaching English as a Second Language Quarterly (Formerly Journal of Teaching Language Skills)*, 39(3.2), 67-109.
- Kaizer, B. M., Zerbini, T., & de Paiva, A. P. (2023). Assessment academic performance in online courses: a multivariate model. *Cuadernos de Educación y Desarrollo*, 15(10), 11512–11530.
- Kumar, S., Agarwal, M., & Agarwal, N. (2021). Defining and measuring academic performance of Hei students- a critical review. *Turkish Journal of Computer and Mathematics Education*, 12(6), 3091–3105.
- Solomon, P. (2004). Peer support/peer provided services underlying processes, benefits, and critical ingredients. *Psychiatric rehabilitation journal*, 27(4), 392.
- Wentzel, K. R. (2005). Peer relationships, motivation, and academic performance at school. *Handbook of competence and motivation*, 279-296.
- Wang, Z., & Liu, P. (2000). The effects of motivational factors, learning strategies, and intelligence level on students' academic achievement. *Journal of Psychology*, (1):65-69.
- Wu, F., & Wang, X. (2017). The influence of college students' emotional intelligence on academic achievement-An empirical study based on structural equation modeling. *Education Academic Monthly*, 294(01): 59-65.
- Wang, Y., & Huang, Y. (2022). A meta-analysis of the relationship between self-efficacy and second language achievement. *Foreign Language Community*, 03:89-96.
- Wang, Y., Li, Y., & Huang, Y. (2011). Research on the relationship between college students' psychological capital, achievement goals A study on the relationship between the target orientation and academic achievement. *Exploration of Higher Education*, (6) : 128-136, 148.
- Yang, Y. (2023). A study of the effect of academic self-efficacy on academic achievement of Master's degree students. Shanghai Normal University, <http://doi:10.27312/d.cnki.gshsu.2023.000902>.
- Zhang, M. (2017). A preliminary perspective on injury rehabilitation of the knee joint in dance sports. *Western Leather*, (10),178.
- Zhang, H., & Shen, L. (2005). The effects of motivation and metacognition on academic achievement. *Psychological Science*, (1):114-116.
- Zeng, R. (2009). Self-efficacy and students' academic achievement. *China Adult Education*, (07):50-51.