

An empirical study on the cultivation of creativity in college students through improvisational dance teaching

Li Li

Zibo Teachers College, Zibo, Shandong, 255130;

Abstract: This study examines the impact of dance improvisation teaching on the creativity development of college students. Using an experimental design, college students were divided into an experimental group and a control group. The experimental group received dance improvisation instruction, while the control group followed traditional dance instruction. Data were collected through the Torrance Creative Thinking Test and other tools, following a pre-test, intervention, and post-test process, and analyzed using SPSS software. The results indicate that dance improvisation teaching significantly enhances college students' creativity in fluency, flexibility, originality, and refinement. It also positively influences divergent thinking, problem-solving skills, and innovation awareness. This study provides empirical evidence and practical guidance for the reform of dance education in higher education institutions and the cultivation of innovative talents.

Key words: dance improvisation teaching; college students; creativity; empirical research

DOI:10.69979/3041-0843.25.02.039

Introduction

In today's rapidly evolving society, innovation has become the core driving force behind progress across all sectors. Higher education is crucial for nurturing future talent and places a strong emphasis on fostering students' innovative capabilities. Dance education, an integral part of arts education, has unique advantages in cultivating creativity. The teaching method of dance improvisation encourages students to spontaneously create dance movements, structures, and expressions based on their own perception, understanding, and imagination in specific situations, which has gained increasing attention.

Traditional dance instruction often focuses on the transmission of dance skills, which can somewhat limit students' creativity. However, teaching dance improvisation breaks this limitation by providing students with the freedom to create and stimulating their innovative thinking and expression. Research indicates that art education is closely linked to the development of students' creativity. As a form of artistic practice, dance improvisation can effectively broaden students' thinking and enhance their creativity. Given the current lack of empirical research on the impact of dance improvisation teaching on the creativity of college students, this study uses an empirical approach to explore the influence of dance improvisation teaching on the development of creativity among college students, aiming to provide theoretical and practical support for the reform of dance education in higher education and the cultivation of innovative talents.

1 Research Background and Significance

1.1 Research Background

As society develops, the demand for innovative talents is increasing day by day. The core quality of innovative talents is creativity, and the education sector regards the cultivation of creativity as a key task. Cultivating students' creativity during higher education is crucial for their future development in various fields. Dance, as a comprehensive art form, not only enhances students' aesthetic abilities and physical coordination but also has unique value in fostering creativity.

In dance art, there is a unique form of expression known as dance improvisation. This form requires dancers to spontaneously create dance movements and structures based on the music's atmosphere, theme, and other elements without prior choreography. This method emphasizes the dancer's autonomy, creativity, and flexibility, fully engaging their

thoughts and emotions to spark creativity. Dance improvisation has been widely adopted in foreign dance education with notable success. Many dance schools consider improvisation courses a core component to foster students' innovative abilities and artistic expression. While domestic dance education is continuously evolving, the application of dance improvisation teaching in higher education remains limited, and empirical research on its effectiveness is scarce.

1.2 Research significance

This study holds significant theoretical and practical implications. Theoretically, the empirical investigation into the relationship between dance improvisation teaching and the development of creativity among college students enriches the theoretical research on creativity in dance education. Previous studies on the impact of dance education on creativity have primarily been theoretical or based on empirical summaries, with a lack of empirical research. This study employs scientific research methods to deeply analyze the effects of dance improvisation teaching on various dimensions of creativity among college students, providing empirical support for further refining the theoretical framework of dance education.

Higher education in dance currently faces the challenge of cultivating innovative talents, and traditional teaching methods often fall short in meeting this demand. The findings of this study can provide practical guidance for the reform of dance education in higher education institutions. The study demonstrates that teaching dance improvisation significantly enhances college students' creativity and offers new teaching ideas and methods for dance instructors. Introducing improvisation into the curriculum can stimulate students' interest in learning, enhance their innovation skills, and thus cultivate more innovative dance professionals who meet societal needs. Additionally, these findings can serve as a reference for innovative teaching practices in other areas of art education and related disciplines.

2 Research strategies

2.1 Research design

In this study, the experimental method was used to randomly divide the college students participating in the study into experimental group and control group, and the experimental group was taught dance improvisation, while the control group received traditional dance teaching. The influence of dance improvisation teaching on the cultivation of creativity of college students was analyzed by measuring and comparing the creativity level of the two groups before and after teaching.

2.2 Research Objectives

Taking college students majoring in dance as the research object, in order to ensure the homogeneity of the research object, all the selected students are from the same grade and have passed the unified professional test and similar basic level of dance when entering the school. The students are divided into experimental group and control group by random sampling method.

2.3 Research Methods

2.3.1 Creativity measurement tools

The primary tool for measuring college students' creativity is the Torrance Creative Thinking Test (TTCT). This test, widely used internationally for assessing creativity, has demonstrated good reliability and validity. It consists of verbal and graphic sections, evaluating creativity in four dimensions: fluency, flexibility, originality, and refinement. This study, tailored to the characteristics of college students and the research objectives, has made appropriate adjustments to the TTCT to ensure that the measurement results accurately reflect the creativity levels of college students in the field of dance.

2.3.2 Teaching Effect Evaluation Questionnaire

To understand students' satisfaction with dance improvisation teaching and their self-assessment of learning outcomes, a teaching effectiveness evaluation questionnaire was designed. The questionnaire includes students' evaluations of the teaching content, methods, and atmosphere, as well as their perceptions of improvements in creativity, dance skills, and artistic expression. The questionnaire uses a Likert five-point scale, with responses ranging from 'strongly disagree' to 'strongly agree.'

2.3.3 Teacher observation record form

In the teaching process, teachers will observe and record students' classroom performance, including students' participation, innovative thinking performance, teamwork ability and other aspects. The observation and recording form is combined with qualitative and quantitative data. Teachers will describe students' performance in detail and score according to the pre-set evaluation standards.

2.4 Teaching intervention

2.4.1 Teaching intervention in the experimental group

A 3-week, weekly fixed-hour dance improvisation course was implemented for the experimental group of students. The course covered fundamental theories, methods, and techniques of improvisation, as well as the development of movement generation, spatial application, and the integration of music and dance. During the course, teachers used various teaching methods to guide students in improvisation practice, including theme improvisation, music improvisation, and prop improvisation. Additionally, students were organized into groups for discussions and mutual evaluations of their works to promote communication and learning among students.

2.4.2 Teaching intervention in the control group

Traditional dance teaching was applied to the control group students, whose teaching content was mostly basic dance training and dance combination rehearsal, etc., and the teaching mainly adopted the method of teacher demonstration and student imitation practice, focusing on the teaching and standardization of dance skills, and the teaching duration was the same as that of the experimental group for 3 weeks.

2.5 Data collection and analysis

Before the teaching intervention, both the experimental and control groups of students underwent a pre-test of creativity using the Torrance Creative Thinking Test to collect data. After the intervention, both groups took a post-test of creativity and completed a teaching effectiveness evaluation questionnaire to gather student feedback. Teachers compiled observation records to supplement data analysis. The collected data were analyzed using SPSS22.0 statistical software: first, descriptive statistics were performed to understand the basic situation of various indicators for both groups; then, independent samples t-tests were used to compare the pre-test and post-test scores of creativity between the two groups, to assess the overall impact of dance improvisation teaching on college students' creativity. The data from the teaching effectiveness evaluation questionnaire and teacher observation records were analyzed using a combination of qualitative and quantitative methods to explore the strengths and weaknesses of dance improvisation teaching.

3 Results

3.1 Comparison of pre-test results between experimental group and control group

Prior to the intervention, researchers conducted a pre-test of creativity levels among students in both the experimental and control groups. They used an independent samples t-test to analyze the differences in scores across various dimensions (fluency, flexibility, originality, and refinement) and the total score of the Torrance Creative Thinking Test between the two groups. The results showed no significant differences in any of the scores between the experimental and control groups ($p > 0.05$), indicating that the creativity levels of the two groups were similar and comparable before the experiment.

3.2 Comparison of post-test results between experimental group and control group

After the teaching intervention, a post-test on creativity was conducted for both the experimental and control groups of students. The independent samples t-test revealed that, in terms of fluency, flexibility, originality, and refinement, as well as the overall score, the experimental group scored significantly higher than the control group ($p < 0.05$). After three weeks of dance improvisation instruction, the experimental group's creativity in all dimensions showed a significant improvement, with a notable difference from the control group. Specifically, in terms of fluency, the experimental group produced more coherent dance movements. In terms of flexibility, they were able to adjust their movements and ideas

more quickly and diversely when faced with different themes and situations. In terms of originality, they broke free from traditional patterns and created many unique and creative dance movements and structures. In terms of refinement, they demonstrated stronger abilities to refine and detail their dance works, with rich details and excellent expressiveness in their performances.

3.3 Analysis of teaching Effect Evaluation Questionnaire results

The statistical analysis of the questionnaire data on teaching effectiveness shows that students in the experimental group have a high level of satisfaction with dance improvisation teaching. In terms of content evaluation, 90% of the students found the teaching content to be rich and engaging, which helps to inspire creativity. Regarding teaching methods, about 85% of the students appreciate the diverse methods used by the teacher, such as thematic improvisation and music improvisation, which they believe help them better master improvisation skills. When evaluating their own learning outcomes, 95% of the students reported that dance improvisation teaching has significantly enhanced their creativity and improved their dance skills and artistic expression.

3.4 Analysis of the results of teacher observation record form

The teacher observation record indicates that during the dance improvisation teaching process, students in the experimental group showed high levels of participation and innovative thinking. During classroom discussions and performance presentations, students actively shared their creative ideas and experiences, learning from and inspiring each other. In the practice of improvisation, students were able to flexibly apply the creative methods and techniques they had learned, resulting in unique and creative dance pieces. For instance, in the 'Nature' theme improvisation, some students imitated natural sounds like wind, rain, and the rustling of leaves, creating dance movements with a strong sense of rhythm and dynamic beauty. Other students, inspired by their emotional connection to nature, expressed their awe and love for the natural world through body language. This demonstrates that dance improvisation teaching effectively stimulates students' innovative thinking and creativity, encouraging them to actively engage in dance creation.

4 Practical application

4.1 The mechanism of dance improvisation teaching on the improvement of creativity of college students

This study demonstrates that college students' creativity has significantly improved through dance improvisation teaching, aligning with the theory that art education can foster creativity. Dance improvisation teaching creates a free and open environment, breaking away from the constraints of traditional dance teaching methods. During improvisation, students quickly integrate their perception, memory, and imagination to create unique dance expressions, which encourages them to break conventions and develop innovative thinking. From a creativity perspective, repeated improvisation exercises make students' movements more fluid, and they can flexibly adjust their ideas and actions in different creative scenarios, enhancing their mental flexibility. By moving beyond traditional patterns, students produce individual works, achieving a breakthrough in originality, and by refining and perfecting their works, they enhance the quality of their creations.

4.2 Factors affecting creativity cultivation in dance improvisation teaching

In the teaching of improvisational dance, students' creativity is influenced by several key factors, with the choice of teaching methods being the most critical. This study explores various teaching methods, including thematic improvisation, musical improvisation, and prop improvisation, which can spark students' interest in creation and provide them with diverse entry points to foster innovative thinking. Additionally, the teacher's guidance and feedback are equally important. Timely encouragement and guidance from teachers can help students discover their creative potential, overcome challenges, and build confidence. The classroom atmosphere also plays a crucial role in nurturing creativity; a positive, relaxed, and inclusive environment allows students to express their ideas and emotions freely, thereby stimulating their passion for innovation.

4.3 Implications of the research results for college dance education

The findings of this study offer significant insights into dance education in higher education institutions. Given the unique value of improvisational dance creation in fostering creativity, universities should prioritize it by integrating such courses into their professional curricula and carefully planning the content and duration. In the classroom, instructors should employ a variety of teaching methods to spark students' creative interest and innovative thinking, while also focusing on guiding and providing feedback to foster a positive learning environment and create a conducive atmosphere for creativity. Additionally, universities can organize dance improvisation competitions, workshops, and other activities to provide students with more opportunities for practice and interaction, thereby further enhancing their creativity.

5 Conclusion

This study employs empirical research methods to explore the impact of dance improvisation teaching on the creativity development of college students. The findings indicate that such teaching significantly enhances students' creativity, positively affecting dimensions such as fluency, flexibility, originality, and refinement. Additionally, factors such as teaching methods, teacher guidance, and classroom atmosphere play a crucial role in fostering students' creativity. This study provides empirical evidence and practical insights for the reform of dance education in higher education institutions and the cultivation of innovative talents. Future research could further expand the scope to investigate the differences in creativity development among students using various types of dance improvisation teaching models, as well as the effects of this teaching on other aspects of student abilities, thereby offering richer theoretical support for the advancement of dance education.

Reference

- [1] Wang Lan. Cultivating Students' Creativity through Music Improvisation [J]. Yellow River Voice, 2017(14):3. DOI:10.3969/j.issn.1810-2980.2017.14.010.
- [2] Fan Xin. Organic Integration of Cultural Understanding and Improvisational Creation [D]. Fujian Normal University, 2023.
- [3] Yin Siqi, Wang Liang. An Exploration of Modern Sports Dance Creation Methods Integrating Chinese Cultural Elements [J]. 2022(15):180-181.