



The Effect of the Training Philosophy of the Dance Course Based on Competency-Based Education to Enhance Dance Creative Thinking Ability for Third-Year Students

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Abstract

Background and Aim: This research focuses on the effect of the training philosophy of the dance course based on competency-based education (TPDC-CBE) to enhance dance creative thinking ability for third-year students of the dance major. The study had two objectives: to compare changes in creative thinking ability before and after implementing TPDC-CBE, and to assess students' satisfaction against a 70% benchmark."

Methodology: The sample was 30 third-year dance students in the dance major at Langfang Normal University. The research instruments were: TPDC-CBE lesson plans, observation form for dance creative thinking ability, and students' satisfaction questionnaire toward the developed course. Data were collected and analyzed through mean, standard deviation, t-test for dependent samples, and t-test for one sample.

Results: The post-test scores for dance creative thinking ability ($M = 73.67$, $SD = 6.74$) were significantly higher than the pre-test scores, $t(29) = 11.98$, $p < .01$. Additionally, the post-test scores exceeded the criterion value of 70%, $t(29) = 8.66$, $p < .01$. The students' satisfaction scores ($M = 4.93$, $SD = 0.21$) were also significantly higher than the criterion value of 70%, $t(29) = 37.62$, $p < .01$.

Conclusion: The TPDC-CBE program had a significant impact on enhancing the dance creative thinking ability of third-year students, who also reported a high level of satisfaction with their learning experience. This study offers a course model for dance education and holds broad implications for extending the application of competence-based education across disciplines.

Keywords: Dance Training; Dance Pedagogy; Competency-based Education; Dance Creative Thinking Ability





Introduction

In the 21st century, talents need four key skills: Creativity, Communication, Collaboration, and Critical Thinking. The Chinese government has clearly set the cultivation of innovative talents as an important goal of educational development in both the “National Medium and Long-Term Education Reform and Development Plan Outline (2010 - 2020)” and the “Outline of the Plan for the Construction of an Educational Powerhouse (2024 - 2035)”. The Central Committee of the Communist Party of China and the State Council also pointed out in “China Education Modernization 2035” that they should innovate the way of talent cultivation and promote teaching methods such as inquiry-based, exploration-based, participatory, and cooperative methods to cultivate students’ innovative spirit and practical ability. The proposals of these documents provide a theoretical basis for curriculum reform. Cultivating outstanding talents with innovative spirit and creative thinking ability has become an inevitable path for higher education in China in the 21st century.

Dance, as an art discipline, enhances the creative thinking ability, not only enhances the artistic expression and creation level, but also strengthens the professional adaptability and market competitiveness, exerting a profound influence on career development. Zhang Shouhe (2025) and Piao Yongguang (2025) both argued that current dance needs to develop in alignment with social construction and social demands. It requires promoting dance practice in a multi-faceted and diversified manner and understanding dance from multiple dimensions, including the requirements for dance professional competencies and the development of dance as a discipline. In April 2022, China’s Ministry of Education released the “Compulsory Education Art Curriculum Standards (2022 Edition)”, which outlines core competencies including aesthetic perception, artistic expression, creative practice, and cultural understanding. Among these, creative practice stands out as a key driver of students’ innovative thinking and creativity. The standards particularly emphasize dance courses as vital platforms for nurturing imagination and creative thinking.

Research on dance education and creative thinking cultivation both domestically and internationally primarily focuses on different dance genres, with distinct research priorities and educational contexts. Domestic studies span all academic stages, emphasizing pedagogical model innovation in primary and secondary school general education. International research covers all educational levels, prioritizing non-professional settings such as “community dance education” and “adult dance interventions”, focusing on the mechanism linking dance training with creative thinking development.

As an important position for cultivating dance teachers, curriculum reform is an important way to cultivate the creative thinking ability of dance students. Through the preliminary research on literature and interviews, the study found that the current teaching of the training philosophy





of the dance course still follows the traditional teaching mode, mainly manifested as follows: 1) The design of course objectives failed to fully reflect the comprehensive ability requirements for modern dance major students in their dance careers. 2) The course content was too traditional and failed to keep up with the development of dance discipline, which resulted in no significant improvement in students' creative thinking ability. 3) The teaching strategies were too monotonous. Teachers mainly adopted the traditional "lecture-based" classroom teaching mode, where the teacher was the main body of the class, and students merely acquired knowledge passively, without highlighting the status of students as the main body. 4) The course evaluation methods were too simple. Evaluators mainly used quantitative evaluation methods, lacking qualitative evaluation. During the evaluation process, only result evaluation was emphasized, with a lack of process evaluation and also a lack of comprehensive ability assessment. These problems seriously restricted the cultivation of students' creative thinking ability.

Competency-Based Education (CBE) refers to a teaching system that organizes courses and teaching based on the knowledge, skills, and abilities required by vocational job positions. It was first proposed by the United States and Canada. It is an educational ideology that regards cultivating students' vocational abilities as the fundamental purpose of vocational education. It is relatively popular in Western countries. The theory of CBE emphasizes student-centeredness, with ability cultivation as the core, and is oriented towards actual needs. It aims to cultivate students' practical abilities, including cognitive abilities, skills, and emotional attitudes. CBE is based on the constructivist theory. In the entire teaching process, teachers play the roles of organizer, guide, helper, and promoter. They make full use of elements such as situations, collaboration, discussions, and learning environments to fully exert students' initiative, enthusiasm, and pioneering spirit. Ultimately, students can achieve the purpose of flexibly applying knowledge and skills to professional scenarios and enhancing their comprehensive vocational abilities. CBE is also based on the theory of multiple intelligences. It focuses on cultivating innovative spirit and practical ability, and builds an innovative teaching model with student development as the goal and student autonomous learning as the main body. This enables the teaching process and the implementation process of courses to become the main activity processes for students to engage in autonomous learning, active exploration, cooperation and communication, and to become the process for students' comprehensive development and creative development (Huang Futao, 2012).

Based on the above issues and in accordance with the teaching objectives and requirements of the dance training science course, this study focuses on the influence of the dance training course based on competency-based education on the creative thinking ability of dance major students. The researchers propose to reform the course from the aspects of curriculum concept,





curriculum objective, curriculum content, teaching strategy, teaching tools, and evaluation, etc., on the basis of ability-oriented education, so as to improve the creative thinking ability of students majoring in dance.

Research Objective

1. To compare the dance creative thinking ability before and after implementing the training philosophy of the dance course based on competency-based education.
2. To compare the dance creative thinking ability after implementing the training philosophy of the dance course based on competency-based education, with a benchmark of 70%
3. To compare students' satisfaction with the training philosophy of the dance course based on competency-based education, with a benchmark of 70%.

Literature Review

1. Training philosophy of the dance course

As a bridging discipline connecting dance science and skill instruction, the development of the training philosophy of dance originated from the intervention of scientific theories in dance training in the early 20th century. Early research focused on the inheritance of experience, while after the 1990s, it evolved into the integration of “science and art”, emphasizing the unification of scientific rigor, systematic approach, and artistic expression in physical training (Yang Ou, 2019; Feng Baiyue, 2009). The training philosophy of the dance course serves as both a foundational course and a core pedagogical course for dance majors in Chinese universities. Pingxin (2016) advocated for the development of multiple intelligences in the training philosophy of dance courses. Wen Rou (2024) emphasized the practical application of interdisciplinary knowledge in training philosophy of dance courses. Both scholars agree that training in philosophy of dance courses should prioritize the application of interdisciplinary knowledge.

2. Competency-Based Education

Competency-Based Education (CBE) is a teaching model focused on cultivating students' vocational competencies, emphasizing clear educational objectives, targeted content, and practical application (Defa R, Napper A, & Heiser E, et al., 2016). Originating from the concept proposed by Bloom, a psychology professor at the University of Houston, who advocated that "talent development goals should be enterprise-oriented," this model has evolved into a widely adopted vocational education approach in North America. In the 1990s, China introduced CBE teaching methods through pilot programs, which significantly influenced the development of its vocational education system.





International Association for K-12 Online Learning, INACOL (2011), and Canadian Education Association, CEA (2013) described CBE as an educational model centered on students' acquisition of specific competencies. This model emphasizes personalized learning paths and assessment based on actual demonstration of abilities. Ministry of Education of China (2018) described CBE as an educational model that is oriented towards students' ability development. This educational model stresses the cultivation of students' practical and innovative abilities. The essence of CBE lies in defining competency goals guided by practical needs, rather than the traditional educational model centered on knowledge impartment. CBE is an operable training system rather than an abstract concept (Li Hongshen, 2024; Wang Ran, 2024). To sum up, the core of CBE in both China and the West lies in determining competency goals based on the requirements of professional positions, and taking the construction of a knowledge system and verification through practice as the methods and paths to achieve these goals.

3. Dance creative thinking ability

The study of creative thinking entered the scientific research phase in 1950. Creative thinking is a complex phenomenon involving neurological, psychological, and philosophical aspects, making it difficult to define. Guilford (1967) considered creative thinking as the concrete manifestation of individual creativity, with divergent thinking at its core; Thomas L. Saaty (2022) pointed out that the purpose of creative thinking was to stimulate imagination and encourage innovativeness. In China, Lin Chongde (2021) defined creative thinking as the psychological quality of generating novel, unique products with social or personal value through the application of all available information for specific purposes. These definitions categorize creative thinking across different dimensions—mental processes, outcomes, and qualities—with their common features being novelty, originality, and applicability. These definitions provide a solid foundation for studying creative thinking in dance.

In dance education, creative thinking ability is a crucial skill that enables students to demonstrate unique and innovative approaches to choreography and performance. Howard Gardner (2008) suggested that creative thinking ability in dance involves expressing new emotions and ideas through body movements. Villa Marletick (2019) defined it as the ability to create a unique dance language through the use of time, space, strength, and the flow of movement elements. Similarly, Lv Yisheng (2021) stated that creative thinking ability in dance refers to the dancer's capacity to create novel and artistically valuable works through bodily movement and emotional expression. These three scholars defined creative thinking ability in dance from the perspective of movement expression as the manifestation of novel emotional abilities that require rich imagination.





Ping Xin (2019) proposed that creative thinking ability in dance is a higher-order psychological activity centered on body language and characterized by the integration of cognition and emotion, requiring dialectical, reverse, divergent, and convergent thinking. Lin Chongde (2021) further emphasized that creative thinking in dance includes not only divergent thinking but also convergent thinking. From a psychological perspective, both scholars identified divergent and convergent thinking as the core of creative thinking ability in dance.

Han Lu (2022), Yang Fei (2023), and Ren Li (2025) argued that creative thinking is not only a trend of the times but also a key and central focus of current college education research. Cultivating students' creative thinking promotes the enhancement of their learning abilities and supports their future development.

In summary, the researchers generally agree that dance creative thinking ability refers to the innovative capacity of dance major students in performance creation, encompassing three core components: dance imagination, dance divergent thinking ability, and dance convergent thinking ability. Fostering students' dance creativity contributes significantly to their overall personal and professional growth.

4. The training philosophy of the dance course is based on competency-based education

Chen Hui (2019) stated that the teaching of dance courses based on competency-based education (CBE) should ensure professionalism in course design, emphasize technical competence in job-related skills, focus on practicality in teaching content, strengthen practical application throughout the teaching process, and establish an evaluation mechanism that combines standardization with diversification. Fu Fangyi (2021) argued that dance course design under the CBE framework should focus on developing job-specific knowledge, skills, and abilities. Through reforms in course content, teaching methods, and instructional approaches, the goal is to enhance students' practical skill development. Zhang Yingying (2022) suggested that dance teaching based on CBE should include progressive teaching plans aligned with professional needs, implement diverse practical training activities, and encourage students to pursue innovative movement creation. Lin Songbai (2023) emphasized that curriculum and teaching reform under the competency paradigm should adhere to the fundamental principles of being student-centered and outcome-oriented.

In conclusion, multiple scholars have highlighted the importance of integrating vocational competency requirements into dance course design, emphasizing the development of students' professional and practical abilities. Drawing on this body of research, the present study developed a competency-based dance training program specifically aimed at enhancing creative thinking ability—an essential component for cultivating career-ready competencies among dance majors.



Conceptual Framework

This study framework implemented the training philosophy of a dance course based on competency-based education, which aimed to enhance creative thinking abilities in third-year dance students at Langfang Normal University's College of Music, while improving students' satisfaction with the new course. The new course comprised six parts: create a situation to introduce the course, explain and demonstrate, case study and group discussion, practical exercise, show and evaluate and summarize and reflect; Dance creative thinking ability included dance imagination, dance divergent thinking ability and dance convergent thinking ability; Students satisfaction referred to students' evaluation of the new course in terms of objectives, course content, teaching strategies, course resources, assessment and feedback, learning experience and other aspects. As shown in Figure 1.

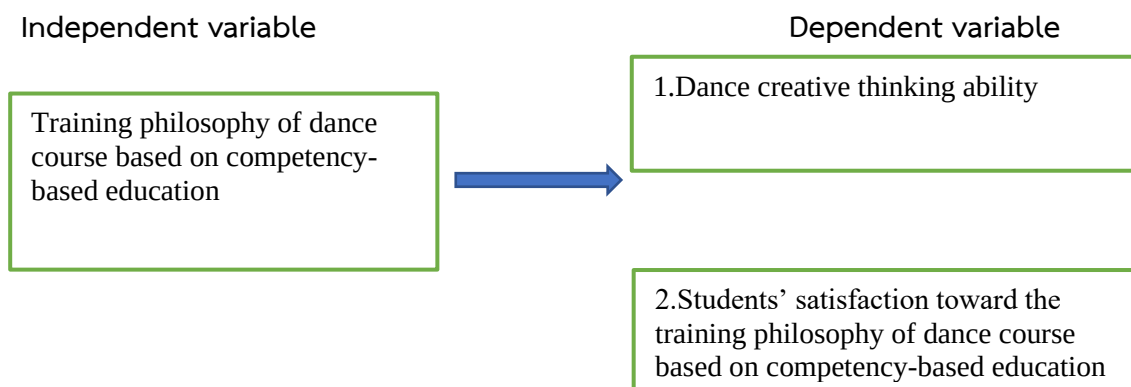


Figure 1 Conceptual Framework of the Study

Methodology

This study employed a quasi-experimental pretest-posttest design with a single experimental group to evaluate the effectiveness of the training philosophy of a dance course based on competency-based education in enhancing creative thinking abilities among third-year dance majors. The population was 60 third-year dance majors (2 classes) at Langfang Normal University. The sample was 30 third-year dance majors (1 class). The sample was randomly selected using the cluster random sampling method. Sampling fully considered the homogeneity between the two class clusters and the balance of heterogeneity within one class cluster: there was no significant difference between the two class clusters in core characteristics (professional competence, gender, academic foundation); and enough individual differences were maintained within the selected class cluster (including students with strong, medium, and weak professional abilities) to avoid sampling bias. This method follows the standard statistical logic, where the



sample size equals the cluster size, and no secondary sampling is required. The personal information of the 30 sample students was anonymized, and their identification was replaced with numbers. The research data was accessible only to researchers and was ensured to comply with the ethical requirements of university research. In the form of written informed consent, students in the sample class were clearly informed of the research purpose, methods, participation rights, the use of research results (for academic research only), and that their personal information would not be disclosed; the students then signed the consent form.

Research tools

The research tools included lesson plans of the training philosophy of the dance course based on competency-based education, a dance creative thinking ability observation scale, and a student satisfaction questionnaire.

1. Lesson plans for the training philosophy of the dance course based on competency-based education

There were 8 lesson plans, which would be implemented for 8 weeks, each of which lasted 90 minutes. The lesson plan adopted the teaching strategy of the constructivism theory of competency-based education, which included six parts: create a situation to introduce the course, explain and demonstrate, case study and group discussion, practical exercise, show and evaluate, and summarize and reflect.

Step 1: Introduced the situation through digital media technology, aroused students' existing relevant experience, and stimulated their interest in learning.

Step 2: Through the explanation and demonstration of key knowledge, teachers built an advanced learning framework for students so as to avoid the interruption of students' knowledge system construction due to the great difficulty of knowledge.

Step 3: Through case studies and group discussions, students were actively involved in problem analysis and sharing of different points of view to enhance self-learning awareness and collaborative learning ability.

Step 4: Students actively applied the knowledge and experience summarized from group discussions to practice and achieved the connection between theoretical knowledge and practical application.

Step 5: Students made presentations in groups, and their learning outcomes were assessed through peer evaluation and teacher feedback.





Step 6: The teacher guided students to summarize and reflect on their course learning, helping them integrate new knowledge into their existing cognitive systems and achieve the in-depth internalization of knowledge.

Through the above teaching strategies, a closed loop of active construction was formed. To ensure the scientificity and effectiveness of the teaching plan, we invited five experts to conduct a review, and the teaching plan was approved.

2. The dance creative thinking ability observation scale

The observation scale for students' dance creative thinking ability consisted of 18 items, with a total score of 90 points. We evaluated the reliability and validity of the observation scale through statistical analysis. The scale showed strong reliability (Cronbach's $\alpha = .87$) and acceptable content validity (IOC=.80–1.00). This indicated that the quality of the dance creative thinking ability observation scale was sufficient for data collection.

3. The student satisfaction questionnaire

The student satisfaction questionnaire used a 5-point Likert scale and included 20 items. We evaluated the reliability and validity of the questionnaire through statistical analysis. The student satisfaction questionnaire showed strong reliability (Cronbach's $\alpha = .97$), which was greater than 0.70, and acceptable content validity (IOC=.80–1.00). The reliability of the student satisfaction questionnaire was sufficient for data collection.

Data collection

The time points for data collection included the start of the project and the end of the eight weeks. The content of data collection included the experimental group's completion of the pre-test and post-test of dance creative thinking ability, as well as the experimental group's satisfaction evaluation of the course.

Data Analysis

This study adopted statistical methods including the calculation of means, standard deviations, paired-samples t-test, and independent-samples t-test. Calculations were performed using computer software to ensure the accuracy and reliability of the results.

1. The paired-samples t-test verified the changes in students' dance creative thinking ability scores before and after the dance training course based on competency-based education, and identified the differences at the significance level of 0.01. The core basis of the paired t-test was matching the "paired design". This test could more accurately focus on the impact of the course on scores, reduce random errors, and improve test efficiency. The study set a significance level of 0.01, which could reduce the probability of misjudging random fluctuations as the course effect and make the conclusions more reliable.



2. The one-sample t-test was used to verify whether both students' post-course creative thinking ability and post-course satisfaction met the 70% compliance standard. This aligns with the core logic of the one-sample t-test, which works by comparing the difference between a "sample mean" and a "known population target value" (or preset standard). In this study, the "70% compliance standard" was established in accordance with the course syllabus.

Results

This study adopts a quantitative analysis method and focuses on two core research questions: First, whether students' dance creative thinking abilities have undergone significant changes after the implementation of the training philosophy of the dance course based on competency-based education; Second, whether students' dance creative thinking abilities and course satisfaction have met the preset 70% compliance standard after the course.

Results of Comparing Core Dimensions of Creative Thinking Ability Before and After Taking the Training Philosophy of Dance Course Based on Competency-Based Education.

Table 1 The Results of Comparing the Different Ccores of Creative Thinking Ability before and after Learning through Training Philosophy of Dance Course Based on Competency-Based Education

Components	n	Before learning		After learning		t	p
		M	SD	M	SD		
Dance imagination	30	20.83	3.06	23.80	2.83	9.08**	.001
Dance divergent thinking ability	30	22.07	2.66	24.57	2.43	5.22**	.001
Dance convergent thinking ability	30	22.23	2.03	25.30	2.54	6.24**	.001
Overall	30	65.13	6.56	73.67	6.74	11.98**	.001

* $p < 0.01$

Note. n = sample size (30 students); M = mean (average score); SD = standard deviation (degree of score dispersion); t = paired-samples t-test; p = probability value. All data were analyzed using SPSS.

**Table 2** The Results of Students' Dance Creative Thinking Ability after Learning through Training Philosophy of Dance Course Based on Competency-Based Education with the Criterion of 70%.

Components	n	Full score	Criteria Score (70%)	M	SD	t	p
Dance imagination	30	30	21	23.80	2.83	5.413**	.001
Dance divergent thinking ability	30	30	21	24.57	2.43	8.036**	.001
Dance convergent thinking ability	30	30	21	25.30	2.54	9.292**	.001
Overall	30	90	63	73.67	6.74	8.664**	.001

*p<.01

Note. t = independent-samples t-test. As presented in Tables 1 and 2, these findings confirm that students' dance creative thinking ability not only improved significantly but also surpassed the 70% mastery threshold.

Table 3 The Results of Students' Satisfaction after Learning through Training Philosophy of Dance Course Based on Competency-Based Education

Question	M	SD	Satisfaction level
Are you satisfied with the achievement of the objectives of the Dance Training course?	4.87	0.35	Very high level
Are you satisfied with the content of the Dance Training course?	4.87	0.35	Very high level
Are you satisfied with the difficulty level of the content of Dance Training?	4.83	0.38	Very high level
Are you satisfied that the course content is practical and cutting-edge, and can be closely integrated with practical applications or the latest developments in the discipline?	4.97	0.18	Very high level
Are you satisfied with the organization and arrangement of the course content?	4.90	0.31	Very high level
Are you satisfied with the teaching methods used by the teachers in the teaching process?	4.90	0.31	Very high level



Question	M	SD	Satisfaction level
Are you satisfied with the teaching procedures of the course?	4.87	0.35	Very high level
Are you satisfied with the teachers' proficiency in using modern teaching methods?	4.97	0.18	Very high level
Are you satisfied that teachers are able to fully motivate students in terms of classroom interaction?	4.87	0.35	Very high level
Are you satisfied that teachers can focus on cultivating students' ability of independent learning and think creatively?	4.93	0.25	Very high level
Are you satisfied with the teacher's teaching attitude?	4.90	0.31	Very high level
Are you satisfied with the level of professional knowledge of the teachers?	5.00	0.00	Very high level
Are you satisfied with the quality of the teachers?	4.97	0.18	Very high level
Are you satisfied that teachers are able to give targeted feedback and guidance to students?	4.93	0.25	Very high level
Are you satisfied with the way the course is assessed?	5.00	0.00	Very high level
Are you satisfied with the standard of evaluation?	4.97	0.18	Very high level
Are you satisfied with your grades?	4.97	0.18	Very high level
Are you satisfied with the course and the results?	4.93	0.25	Very high level
Are you satisfied with the course learning resources provided by the teachers?	4.93	0.25	Very high level
What is your overall satisfaction with this course?	4.97	0.18	Very high level
Total/Over all	4.93	0.24	Very high level

Table 4 The Result of Students' Satisfaction after Learning through Training Philosophy of Dance Course Based on Competency-Based Education with the Criterion of 70%.

Components	n	Full score	Criterion score	M	SD	t	p
Students' satisfaction	30	5	70% (3.51)	4.93	0.21	37.62**	.001

*p<.01



Note. t = independent-samples t-test. As presented in Table 3 and Table 4, these findings confirm that students were highly satisfied with the course and have exceeded the 70% mastery threshold.

Discussion

This study aimed to evaluate the effectiveness of the training philosophy of the dance course based on competency-based education in improving the creative thinking abilities of third-year dance majors. The results showed that the post-test scores of the experimental group in terms of imagination, divergent thinking ability, and convergent thinking ability were all significantly better than their pre-test scores. Specifically, the post-test scores of students' dance creative thinking ability ($M=73.67$, $SD=6.74$) were higher than their pre-test scores, $t(29)=11.98$, $p<0.01$; the post-test scores of students' dance creative thinking ability were higher than the criterion value of 70%, $t(29)=8.66$, $p<0.01$; the scores of student satisfaction ($M=4.93$, $SD=0.21$) were higher than the criterion value of 70%, $t(29)=37.62$, $p<0.01$. These findings indicated that the Training Philosophy of Dance Course based on competency-based education significantly improved the creative thinking abilities of third-year dance majors.

The significant improvement in dance creative thinking ability achieved by the experimental group was mainly attributed to the effective implementation of teaching strategies based on competency-based education. Through contextualized teaching, real-life scenarios were created for students, which helped them establish an effective connection between old and new knowledge and stimulated their enthusiasm for learning. This finding was consistent with the research conclusions of Hu Ying and Yan Jie (2022). Case analysis focused on typical problems in dance training and emphasized cultivating students' ability to identify problems, think about problems, and actively seek new methods to solve them. Group discussions valued collaborative learning, and the collisions of ideas generated during the discussions strengthened the cultivation of creative thinking ability. This finding was associated with Gardner's Theory of Multiple Intelligences. Through practical sessions, students tested the scientificity and rationality of innovative methods, which not only consolidated their theoretical foundation but also enhanced their practical abilities. This was consistent with the research conclusions of Chen Hui (2019). The presentation and evaluation phase built a platform for students' self-expression, boosted their learning confidence, and significantly increased their course participation. The summary and feedback served as both an evaluation of students' learning outcomes and a foundation for teachers' continuous improvement of the course. During the phase of organizing experimental data, it was found that students gave a high evaluation of the course content, teaching methods, and teaching effectiveness. This finding was consistent with the research conclusions of Zhang





Yingying (2022). The research results were consistent with existing theories, indicating that the Training Philosophy of Dance Course based on competency-based education could significantly improve students' dance creative thinking ability.

Given that the training philosophy of the dance course based on competency-based education has achieved remarkable results in enhancing students' creative thinking abilities, the next step can focus on strengthening research in directions such as expanding competency dimensions, extending practical scenarios, and verifying long-term value, to further and comprehensively improve the comprehensive abilities of dance majors.

Explore the integration of a “creative decomposition” segment into the technical training module, guiding students to reconstruct movement logic based on their technical foundation and avoiding the disconnection between technical training and the cultivation of creative thinking abilities.

Explore the integration of dance with technology—such as AR/VR virtual stages and motion capture technology—to cultivate students' ability to use technological tools to realize creative expression.

Strengthen research on the “personalized training mechanism” for students: by analyzing students' technical foundations and creative preferences, meet the personalized teaching needs of students at different foundational levels. In response to students' diverse career plans, study how to add “career-adapted modules” to the curriculum, ensuring that competency development aligns with career demands accurately.

This study focuses on the “short-term effectiveness after course implementation” (i.e., differences in pre-test and post-test scores). In the future, “long-term effect tracking research” can be conducted to verify the sustained value of the course for students' competence development. For instance, a 1–3-year follow-up can be carried out on students who participated in the course to study their professional performance after graduation and analyze the course's supporting role in students' long-term career development. Meanwhile, based on long-term tracking data, the existing shortcomings of the course should be studied to form a closed loop of “course effectiveness -problem feedback-module optimization”, thereby promoting the continuous iteration and upgrading of the course.

The sample size of this study is 30, which is relatively small. Future studies should increase the sample size and enhance the diversity of participants (including students of different ages and skill levels) to promote the generalization of research findings and improve the external validity of research conclusions.

Current evaluations focus heavily on “dance creative thinking ability”, and there is a need to establish a more comprehensive competency evaluation system. For instance, abilities such





as dialectical thinking ability and collaborative learning ability can be incorporated into the evaluation system, and multi-dimensional evaluation indicators can be designed.

These research directions not only continue to uphold the core logic of competency-based education but also expand the boundaries of competency development from the perspectives of “comprehensiveness, practicality, and long-term effectiveness”. They can help dance majors solidify their professional foundation while equipping them with comprehensive competitiveness to respond to future industry changes.

Conclusion

This study addresses the practical issue of “emphasizing skills over innovation” in dance education. Guided by the principles of “demand-oriented, competence-centered, and practice-driven”, it introduces the concept of competency-based education (CBE) and systematically develops a CBE-oriented dance training course tailored to dance majors. Through an 8-week empirical study involving 30 third-year dance majors from Langfang Normal University, the study not only validates the effectiveness of this course in enhancing students’ dance-related creative thinking abilities but also fills the theoretical gap in the application of the CBE concept in the field of dance training. Previously, the CBE concept has been mostly applied in vocational education and science and engineering education, while there is limited research on it in art education fields such as dance. Moreover, existing relevant studies in dance education have mostly focused on skill development, without addressing the core dimension of creative thinking. This study is the first to systematically construct a theoretical framework for the integration of CBE and dance training courses, clarifying the intrinsic connection between “competency-based education” and “creative thinking”, enriching the theoretical system of dance education, and laying a theoretical foundation for subsequent related research.

The practical significance of this study lies in the transformation of students from “passive learners” to “active innovators and practitioners” and the evolution of teachers from “skill instructors” to “competence mentors”. This transformation not only enhances teachers’ teaching design capabilities but also drives an in-depth transformation of the dance teaching philosophy from “teaching-centered” to “learning-centered”. The developed teaching strategies and evaluation scales provide replicable models for educational practice. Additionally, this study promotes the transition of the dance industry from focusing on “technical talents” to cultivating “innovative talents”.

The outcomes of this study are deeply integrated with the formulation of dance education policies and course reform. They provide specific and measurable innovative training objectives and supporting plans for teacher training and dance education policies, and offer insights for





course reform—expanding the research value from “practical verification of a single course” to “innovative research on multiple courses in dance education”. In the future, as the research outcomes are implemented at the policy level and promoted at the course level, it is expected to drive the transformation of dance education from “skill-based” to “competence-based and innovation-oriented”, and cultivate more dance talents with “solid skills and innovative thinking”.

Recommendation

The researchers believe that the course development model based on competency-based education is also applicable to the development of other dance courses. Based on the above research results, we propose the following:

1. Practical implications for educators

It is suggested that teachers should design “one image transformation task” for each core skill in the first-grade dance skill class (such as using modern dance force to express “flame rising”), to realize the simultaneous training of skills and innovative thinking;

It is suggested that teachers should set up an “improvisation module” in the second-grade curriculum to guide students to generate physical expression immediately and stimulate creative thinking;

It is suggested that teachers should assign “one small creative project” (such as “modern transformation of intangible cultural heritage dance elements”) to students at the beginning of the third-grade semester to promote students from “learning skills” to “innovating with skills.”

It is suggested that teachers should participate in at least one CBE training session every semester and try to record the teaching effect in class. Each semester, they should accumulate three “innovative teaching cases” and share them at the end of the semester to constantly improve their teaching strategies.

2. Directions for future research

Expand the research subjects: In the future, the research subjects can be expanded to include students of different age groups and different dance levels, to explore the influence of dance training courses based on the concept of competency-based education (CBE) on the development of creative thinking abilities of students from different groups.

Deepen the research content: In the future, further in-depth research can be conducted, such as exploring the influence mechanisms of different teaching methods and contents on the development of students’ creative thinking abilities, as well as the relationship between creative thinking abilities and other professional abilities.

Expand the research methods: In the future, artificial intelligence (AI) tools can be introduced for analysis and research, providing more scientific evidence for teaching.





Enrich the research methodologies: In the future, we recommend adopting industry demand surveys to provide empirical evidence for setting CBE course objectives and implementing iterative action research to ensure the curriculum's effectiveness in enhancing creative thinking. Furthermore, by utilizing interdisciplinary integration design, we aim to break away from conventional dance teaching paradigms and establish methodological foundations for cultivating creative thinking through multidisciplinary perspectives.

In conclusion, in the future, it is necessary to further strengthen theoretical research and practical exploration, continuously improve the course system and teaching methods, and contribute to the cultivation of dance talents with innovative spirit and practical ability.

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