

### **Construction and Optimization of Dance Curriculum Evaluation System Based on Multiple Intelligences Theory**

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#### Abstract

By analyzing Howard Gardner's Multiple Intelligences Theory and curriculum evaluation, this paper clarifies related concepts and discusses the importance of curriculum evaluation. In the construction and optimization of the dance course evaluation system based on the theory of multiple intelligences, this paper discusses the construction method and optimization strategy of the evaluation system, as well as the feasibility study of the construction and optimization of the evaluation system, and discusses the implementation and effect evaluation of the dance course evaluation system based on the theory of multiple intelligences. In this study, the advantages and potentials of each student in different intelligence fields are found by using the theory of multiple intelligences. The aim is to construct an evaluation system suitable for dance course, so as to evaluate students' comprehensive performance more comprehensively. This study believes that the application of multiple intelligences theory to construct the evaluation system of dance course can comprehensively evaluate students' ability and performance in dance course from multiple dimensions. The evaluation methods involved in the research can be used to implement the evaluation system, and the effectiveness and feasibility of these evaluation methods are verified through field observation and actual investigation.

Keywords: theory of multiple intelligences, university dance course, curriculum evaluation

#### 1. Introduction

Dance is not only enjoyable to watch, but also has a positive impact on individual physical and mental health, social ability and emotional expression. Therefore, dance education has great potential in cultivating students' multiple intelligences. With the deepening of the knowledge and understanding of multiple intelligences, in order to better evaluate and optimize the quality of dance courses, it is very important to construct a set of dance course evaluation system based on the theory of multiple intelligences.

The theory of Multiple intelligences, or MI theory for short, was first described by psychologist and educator Howard Gardner in his 1983 book *"Frames of Mind*: It was first proposed in the book *The Theory of Multiple Intelligences"* (Zeng Xiaojie, 2001) and has been widely used in the field of education. According to this theory, human intelligence is not only reflected in traditional language and logical

mathematical abilities, but is composed of multiple intelligences, including speech, logic, visuospatial, music, body kinesthetic, interpersonal relations, introspection, and natural observation. Gardner believes that each person possesses eight or nine kinds of intelligence, and researchers are constantly discovering the factors of prior intelligence (Howard Gardner & Shen Zhilong, 2003). According to the research of Gu Mingyuan and Meng Fuhua, theory "the of multiple intelligences is the best interpretation of quality education" (Gu Mingyuan & Meng Fuhua, 2001). Dance is the use of the body, which involves the flexibility and muscle control of the body, but also requires the dancer to have good coordination and spatial perception. Therefore, dance is an art form that integrates a variety of intelligence.

The current dance course evaluation system often focuses on the training of skills and the display of results, and does not fully consider the development of students' multiple intelligences. Therefore, this study aims to build a comprehensive dance course evaluation system based on the theory of multiple intelligences, so as to better evaluate the development of students in different aspects of intelligence, so as to provide scientific basis for the optimization of dance education.

By constructing a dance course evaluation system based on multiple intelligences, students' potential advantages in dance learning can be comprehensively understood, more and targeted learning support and training programs can be provided for individuals. This evaluation system can make the goal of dance education more clear, help teachers to better cultivate students' multiple intelligences in the course design and teaching process, and students' improve learning effect and comprehensive ability.

In the aspect of dance course evaluation, the construction and optimization of evaluation system based on multiple intelligences theory is an urgent problem to be solved. The goal of this study is to explore a scientific and reasonable dance course evaluation system by fully considering the development of students' multiple intelligences, so as to provide a more comprehensive and objective evaluation standard for dance education, so as to optimize the quality of dance education and promote the all-round development of students.

## 2. Multiple Intelligences Theory and an Overview of Dance Curriculum Evaluation

#### 2.1 An Overview of Multiple Intelligences Theory

The theory of multiple intelligences is a new theory of human intelligence proposed by American psychologist Howard Gardner in 1983. In the theory of multiple intelligences, intelligence is regarded as "a kind of biopsychological potential", "the ability to solve problems or make products in a specific cultural context or society" (Shen Zhilong, 2009). The theory of multiple intelligences is a new theory of the structure of human intelligence, which holds that there are multiple intelligences in the way of human thinking and cognition (Zhong Zhixian, 2004). Including Linguistic intelligence, Logical-mathematical intelligence, Interpersonal intelligence, self-introspective intelligence, Musical intelligence, Spatial intelligence, intelligence, Bodily-kinesthetic Naturalist intelligence, Existential intelligence (Zhu Zhiting, Peng Hongchao & Lei Yunhe, 2018). The theory holds that humans have a variety of independently existing intelligences, each of which affects the individual's learning ability and performance to varying degrees.

First, linguistic intelligence refers to the ability of people to express their thoughts and feelings through speech, including the ability of phonetic comprehension, phonetic expression and literary reading. People may have different levels of ability to learn and use language, some are good at oral expression, others are good at written expression.

Second, logical-mathematical intelligence refers to people's ability to analyze problems, reason and solve complex problems. People with this type of intelligence usually show high ability in mathematics, they are good at using logic and reasoning to solve problems, and have good abstract thinking skills.

Third, spatial intelligence refers to the ability of people to recognize and use space, including the ability of graphic thinking, architectural design and sense of direction. People with this type of intelligence usually have high perception and understanding abilities in terms of vision, and are able to accurately perceive and understand graphics, images, and spatial relationships.

Fourth, musical intelligence refers to people's ability to perceptively perceive, understand and express music. People with this type of intelligence usually show high creativity and artistic expression in music, and can accurately capture the rhythm, melody and harmony in music.

Fifth, Bodily-kinesthetic intelligence refers to the ability of people to express and convey information through the movement of their bodies. People with this type of intelligence usually have high coordination and flexibility in sports and dance, and are able to express and convey their meaning through body language.

Sixth, interpersonal intelligence refers to people's ability to know and understand the mental state of others, coordinate interpersonal relationships and communicate effectively. People with this type of intelligence usually have high abilities in social interaction and teamwork, are able to accurately understand the emotions and needs of others, and build good relationships with others.

The theory of multiple intelligences holds that human beings have a variety of independent intelligences, each of which affects individual learning ability and performance to different degrees. Understanding and understanding the overview of the theory of multiple intelligences is helpful to construct and optimize the evaluation system of dance course, so that the evaluation can more comprehensively and accurately reflect the learning and development of students in different aspects of intelligence.

#### 2.2 The Concept and Importance of Dance Curriculum Evaluation System

Evaluation refers to the systematic and step-by-step quantitative measurement or qualitative description of students' learning process and results to determine whether the desired educational goals have been achieved (Wang Shuhui, 2011). As a tool to evaluate the quality of dance education, the dance evaluation curriculum system plays an important role in improving the teaching level of dance course, stimulating students' learning interest and promoting students' all-round development. The dance curriculum evaluation system is built and optimized based on the theory of multiple intelligences, aiming at comprehensively evaluating students' abilities in all aspects of dance learning. This evaluation system can not only measure the progress of students in skills, creativity, expressiveness and other aspects, but also pay attention to the performance of students' emotional attitude, teamwork and cross-cultural awareness.

Through the dance curriculum evaluation system, students' learning effectiveness can be evaluated more comprehensively and objectively. Traditional dance evaluation often focuses on the mastery of skills and performance effects, but neglects the potential and development of students in other aspects. Through the evaluation system based on the theory of intelligences, students' multiple learning outcomes can be evaluated in combination with multiple intelligence dimensions, including Bodily-kinesthetic intelligence, musical intelligence, spatial intelligence, etc. On the one hand, this can more accurately assess the comprehensive ability of students, on the other hand, it can also encourage students to develop in different areas of intelligence and improve the learning effect.

The dance curriculum evaluation system can promote the all-round development of students. While the traditional dance evaluation system pursues skill and performance effect, it often lacks the cultivation of students' other abilities. The evaluation system based on the theory of multiple intelligences focuses on cultivating students' multiple intelligences, so that students can show and develop multiple intelligence dimensions in the dance course. Taking Bodily-kinesthetic intelligence as an example, through the study of dance classes, students can develop their flexibility, strength, coordination and other physical skills, while improving their ability to express themselves and creativity.

The importance of the dance curriculum evaluation system is to stimulate students' learning interest and motivation. By incorporating students' interests, needs and abilities into the evaluation system, students' initiative and enthusiasm can be better stimulated. Dance course evaluation is no longer just a judgment for the pursuit of results, but encourages students to explore, innovate and develop. While receiving positive feedback and affirmation, students can also better understand their own advantages and potential, and further improve their learning motivation and enthusiasm.

## 3. Construction and Optimization of Evaluation System

3.1 Construction Method of Dance Curriculum Evaluation System Based on Multiple Intelligences Theory

Diversified teaching evaluation, as the name

implies, is to use two or more methods in evaluating students' learning process and results, instead of being limited to a single paper-and-pencil test. It also needs to include practical evaluation, archival evaluation, oral evaluation, etc. (Wang Shuhui, 2011). The construction method of dance course evaluation system based on multiple intelligences theory includes the following steps.

First, the theory of multiple intelligences needs to be deeply studied and understood. The theory of multiple intelligences puts forward the concept of multiple intelligences, and thinks that everyone has different types of intelligence, including Logical-mathematical intelligence, Linguistic intelligence, spatial intelligence, musical intelligence, and Bodily-kinesthetic intelligence. In the evaluation of dance course, the evaluation indexes and methods will be carefully designed based on the concept of multiple intelligences theory. Secondly, it is necessary to determine the specific indicators suitable for the evaluation of dance courses. Based on the theory of multiple intelligences, we can consider designing indicators related to intelligences different types of to comprehensively evaluate the comprehensive ability of students. For example, for Linguistic intelligence, students' ability to understand and use dance terms can be assessed; For musical intelligence, students' sensitivity to musical rhythm and expression can be evaluated. For spatial intelligence, students' spatial perception and expression ability in dance can be assessed. Third, according to the determined evaluation index, the corresponding evaluation method can be designed. These methods can include presentations, interviews, observations, questionnaires and other forms. For the evaluation of dance courses, it is very important to directly observe students' performance in class, which can be evaluated by evaluating students' movement skills, creativity and dance expression ability. In addition, questionnaires can also be used as a supplementary means to understand students' overall feedback on dance classes and their cognition of different types of intelligence. Fourth, it is necessary to optimize the dance course evaluation system through data analysis and feedback mechanism. Data analysis can help to understand how students perform on different types of intelligence, so that course content and teaching methods can be adjusted and improved. In addition, the timely

feedback mechanism is also an important link in the optimization of the evaluation system, which can help students understand their shortcomings in dance learning and provide specific suggestions for improvement.

The construction method of dance course evaluation system based on the theory of multiple intelligences aims to comprehensively evaluate students' different intelligence types and dance abilities in order to promote their personalized development. Through reasonable selection of evaluation indicators and methods, combined with data analysis and feedback mechanism, the evaluation system can be continuously improved to improve teaching quality and students' learning effect. This construction method has important reference value for the design and practice of the evaluation system of dance course.

#### 3.2 Optimization Strategy of Dance Curriculum Evaluation System Based on Multiple Intelligences Theory

The optimization strategy of the dance curriculum evaluation system based on the theory of multiple intelligences needs to consider the development of different types of intelligences comprehensively to make the evaluation system more comprehensive and objective.

First, for Bodily-kinesthetic intelligence, the evaluation system should pay attention to the performance of students in dance skills, including the mastery of dance posture, coordination and movement fluency. By examining whether students can accurately imitate and demonstrate the teacher's movements, the degree of development of their body's dynamic intelligence can be assessed. Second. for Linguistic intelligence, the evaluation system should focus on students' ability to use language in dance performances. This includes not only the explanation and interpretation of the dance movements, but also the thinking and expression of the dance performance. Students should be able to use appropriate words and phrases to describe their dance performance and to convey their intention and emotion. Third, the evaluation system should also take into account Logical-mathematical intelligence. In dance evaluation, Logical-mathematical intelligence is mainly concerned with students' ability to understand and apply dance rules and

structures. Students should be able to analyze and explain the logical relationships in dance, including the ways in which various dance movements are connected and transformed, as as the structure and rhythm well of choreography. Fourth, careful observation and spatial-visual intelligence also need to be included in the evaluation system. Students need to be sensitive to space, image and visual details in dance performances. The evaluation system can evaluate students' spatial-visual intelligence by observing whether students can accurately grasp the spatial position of dance movements, the construction of dance images and the presentation of visual effects. Fifth, the evaluation system should also pay attention to the development of interpersonal intelligence. Interpersonal intelligence is mainly concerned with the ability of interaction and cooperation between individuals. The evaluation system can observe the teamwork, communication and interaction of students in the group dance exercise, and evaluate the development level of students in terms of interpersonal intelligence. Sixth, the evaluation system should include the evaluation of students' self-cognition and emotional intelligence. Students should be able to correctly understand their own strengths and weaknesses in dance performance, and be able to correctly deal with emotional changes and overcome difficulties and challenges.

To sum up, the optimization strategy of the dance course evaluation system based on the theory of multiple intelligences should comprehensively consider the development of body-dynamic intelligence, language-speech intelligence, logic-mathematical intelligence, spatial-visual intelligence, personal intelligence, self-cognition and emotional intelligence, so as to ensure the comprehensiveness and objectivity of the evaluation and promote the all-round development of students.

#### 3.3 The Feasibility of Constructing and Optimizing the Evaluation System of Dance Curriculum Based on Multiple Intelligences Theory

The construction and optimization of dance course evaluation system is an important subject, aiming at effectively evaluating the development of different types of intelligence and the improvement of overall quality of students in dance learning. In this case study, we will discuss how to apply the theory of multiple intelligences construction to the and optimization of dance course evaluation system.

Through understanding the basic principle of multiple intelligences theory in dance education, it analyzes that students can express and show their abilities through different types of intelligence in dance learning. Therefore, it is necessary to construct an evaluation system to comprehensively evaluate the development of students in different types of intelligence.

For each type of intelligence, the corresponding evaluation index can be designed. For example, for verbal intelligence, students' verbal expression ability in dance performance can be assessed; For spatial intelligence, students' ability to perceive and use space in dance movements can be assessed. The evaluation methods can include observation records, performance assessment, questionnaires and other forms to ensure the objectivity and comprehensiveness of the evaluation. Evaluation criteria are used to judge the development level of students in each type of intelligence. Through the establishment of different grades, students' performance can be accurately evaluated and classified. Evaluation standards and grades should be challenging to stimulate students' learning motivation and further improvement.

Select some representative dance courses, and verify the effectiveness and feasibility of the evaluation system by observing, recording and evaluating the performance of students in different types of intelligence. The actual case analysis can help to find the problems existing in the evaluation system, adjust and optimize in time, and improve the accuracy and stability of the evaluation results. Adjust and optimize according to the results of actual case analysis. According to the analysis results, the evaluation system can be optimized by revising the evaluation index, adjusting the evaluation standard and grade division. At the same time, it can also combine teaching practice and make student feedback to necessary improvements and innovations. Continuous optimization will make the evaluation system more scientific, standardized and effective.

By applying the theory of multiple intelligences to the construction of the dance course evaluation system, we can understand the students' dance potential and advantages more comprehensively. The talents and development potential of different students in different areas of intelligence are different, so a variety of evaluation methods and tools are needed to evaluate. In the evaluation process, we can use

many ways, such as actual performance, observation record, student self-evaluation, expert evaluation and classmate mutual evaluation, to ensure the objectivity and accuracy of the evaluation. In optimizing the evaluation system of dance curriculum, it is necessary to constantly reflect and adjust the evaluation standards and methods to meet the needs and changes of students' development. Through discussion and communication with dance teachers, students' difficulties and problems in the learning process can be timely understood, and targeted improvement and optimization can be carried out. In addition, students can be provided with targeted feedback and guidance based on the assessment results to help them better develop and improve.

# 3.4 The Implementation and Effect Evaluation of the Dance Course Evaluation System Based on the Theory of Multiple Intelligences

The implementation and effect evaluation of the dance curriculum evaluation system based on the theory of multiple intelligences is an important research work. Before the implementation of the evaluation system, it is necessary to clarify the evaluation objectives and standards, and establish the corresponding evaluation index system. This process can involve education experts, dance teachers and students to ensure the comprehensiveness and objectivity of the evaluation system.

In the implementation stage, teachers can obtain the data needed for evaluation by collecting students' classroom performance, work display and learning results. At the same time, modern scientific and technological means, such as video recordings and dance skill evaluation software, can also be used to assist data collection and analysis. These data can reflect the performance of students in different areas of intelligence, such as physical movement intelligence, musical intelligence, spatial intelligence and so on. By comprehensively analyzing these data, it is possible to objectively assess the degree of development and level of achievement of students in different areas of intelligence.

The results of the assessment are of great significance to students, teachers and parents. For students, through assessment, they can understand their own strengths and weaknesses, and improve their learning strategies and dance skills in a targeted way. For teachers, the assessment results can help them understand the needs and differences of students, so as to better design and implement personalized teaching programs. For parents, the assessment results allow them to understand their child's development in dance and provide support and guidance for their child's learning.

In the optimization of the evaluation system, the evaluation indicators and evaluation methods can be adjusted and improved according to the early implementation and feedback. For example, the evaluation indicators can be further refined to make them more specific and clear, and more fully reflect the ability and level of students. At the same time, it can also be combined with other relevant theories and research results to expand the evaluation system to better meet the diversity of different students' development and learning needs. In addition, in order to ensure the accuracy and fairness of the evaluation, it is necessary to pay attention to the professionalism and objectivity of the evaluators in the implementation process. Evaluators should have a wealth of dance knowledge and evaluation experience, and be able to accurately judge the performance and level of students. At the same time, evaluators should also follow the evaluation criteria determined by the evaluation system, eliminate the influence of subjective bias, and ensure the reliability and comparability of the evaluation results.

#### 4. Research Conclusion and Prospect

Through the research on the construction and optimization of the dance curriculum evaluation system based on the theory of multiple intelligences, the evaluation system in the field of dance education is comprehensively explored and optimized. In this study, the theory of multiple intelligences is thoroughly researched and understood, recognizing the differences in strengths and potential of each student in different areas of intelligence. Based on the construction of an evaluation system suitable for dance courses, in order to evaluate the comprehensive performance of students more comprehensively.

Firstly, the theory of multiple intelligences is adopted to frame the evaluation of dance course. Various types of intelligence involved in the learning process of dance are studied and discussed, and the importance of different types of intelligence such as Bodily-kinesthetic intelligence, musical intelligence, spatial intelligence in dance learning is clarified. Based on these types of intelligence, a comprehensive evaluation index system is established, which can comprehensively evaluate students' ability and performance in dance courses from multiple dimensions.

Secondly, a set of evaluation methods and tools are designed to implement the evaluation system. These assessment methods and tools include observation records, student self-assessment, teacher evaluation, etc., which can effectively collect performance data of students in different types of intelligence. Through field observation and actual investigation, the validity and feasibility of these evaluation methods and tools are verified.

Through the research, we also realize that there are still some problems and challenges in the current evaluation system. First of all, the formulation of evaluation criteria needs to be more scientific and accurate to ensure the fairness and reliability of evaluation. Second, the evaluation system needs to be closer to the actual needs of students, and strive to avoid framing students in a narrow evaluation scope. In addition, the feedback of evaluation results also needs to be more flexible and personalized to adapt to different student learning styles and rhythms.

It is hoped that the design and implementation of the dance curriculum evaluation system will be further improved in the future. We will further deepen the research on the theory of multiple intelligences, and combine the latest pedagogical theories to continuously optimize the indicators and methods of the evaluation system. Enlarge the sample size, expand the breadth and representativeness of the research, and verify the universality and feasibility of the evaluation system. To study how to apply the evaluation system to the actual dance teaching, and build an online platform for students, parents to participate and teachers and communicate.

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