

THE DEVELOPMENT OF TRAINING COURSE BASED ON ORFF
MUSIC TEACHING THEORY TO IMPROVE MUSICAL RHYTHM
SKILL OF UNDERGRADUATE STUDENTS

WANG LIPING

A thesis submitted in partial fulfillment of the requirements for

Master of Education in Curriculum and Instruction

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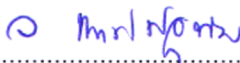
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Thesis: The Development of Training Course Based on Orff Music Teaching Theory to Improve Musical Rhythm Skill of Undergraduate Students.
Author: Wang Liping
Program: Curriculum and Instruction
Advisor Committee: Dr.Phenporn Thongkamsuk
Advisor Committee: Associate Professor Dr.Jittawisut Wimuttipanya


Bansomdejchaopraya Rajabhat University approved this thesis paper in partial fulfillment of the requirements for the Master of Education Program in Curriculum and Instruction


..... Dean of Graduate School
(Assistant Professor Dr.Kanakorn Sawangcharoen)

Committees:


..... Chairman
(Associate Professor Dr.Jittirat Saengloetuthai)


..... Committee
(Dr.Phenporn Thongkamsuk)


..... Committee
(Associate Professor Dr.Jittawisut Wimuttipanya)


..... Committee
(Assistant Professor Dr.Supaporn Srihamee)


..... Committee and Secretary
(Assistant Professor Dr.Tanaput Chanchaeroen)

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Author: Wang Liping

Program: Curriculum and Instruction

Major Advisor: Dr.Phenporn Thongkamsuk

Co-advisor: Assoc.Prof.Dr.Jittawisut Wimuttipanya

Academic Year: 2023

ABSTRACT

The objectives of this research were 1) to develop of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students. 2) to compare students' musical rhythm skill before and after training course based on Orff music teaching theory, The sample group included 30 first-year students majoring in music education from Yunnan Communication Vocational and Technical College , Kunming City, China, in the first semester of the academic year 2023, those who obtained through cluster random sampling cluster random sampling method. The research instruments included 1) Training course activity plan based on Orff music teaching theory and 2) musical rhythm skill measurement form. Data were statistically analyzed by mean, standard deviation, and t-test for dependent samples.

The results were found that:

1) Development training course based on Orff music teaching theory for undergraduate students, Training courses include: module 1, theoretical knowledge., module 2, physical training and module 3, musical instrument. training course in total have 12 hours. it was found that students' musical rhythm skill has been improved, students can more accurately grasp the rhythm elements in the music, remember and master a variety of complex rhythm types faster, and better understand the emotion and expression in the music

2) Using training course Orff music teaching theory, the musical rhythm skill of first-year students after class is significantly higher than before class, with statistical significance at the level .01.

Keywords: Training course, Orff music teaching theory, Music rhythm skill

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Wang Liping

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Chapter 1

Introduction

Rationale

Orff music teaching theory is a music education theory proposed by Carl Orff, the German music educator, at the beginning of the 20th century. (Zhou Jun, 2020) this theory advocates the combination of music education with children's life, learning and creation, and cultivating children's musical ability and artistic beauty through games and collective creation. The theory of Orff music teaching is an innovation and attempt of the traditional music education mode. (Barbara Haselbach, 2014) He believes that traditional music education puts too much emphasis on the teaching of skills and professional knowledge, and ignores children's subjectivity and creativity, which makes them lose interest and love for music. Therefore, Orff proposed a model of music education that is close to the nature of children, aiming to stimulate children's musical potential and creativity.

The content of Orff music teaching theory mainly includes rhythm, melody, harmony, ensemble, creation and music perception. Among them, rhythm occupies an important position in Orff music teaching theory (Gu Meixia, 2019). Orff believes that rhythm is the foundation of music, the soul of music and the core of music education. Through the cultivation of rhythm, children can develop an accurate sense of rhythm, thus improving their musical ability and expression. (Luo Ling, 2016) In Orff music teaching, the cultivation method of rhythm sense mainly includes body movements and oral singing. Through body movements, children can feel the rhythm and movement more intuitively, they can grasp the rhythm and rhythm pattern more accurately. These activities not only enhance the children's perception ability, but also cultivate their coordination and cooperation spirit.

With the development of society and the improvement of economic living standards, people's pursuit of spiritual aspects has also increased. The new era puts forward new requirements for students' sense of musical rhythm, including the requirement

to further consolidate professional music knowledge at the cognitive level, and at the same time, the requirement to master more professional skills at the practical level, as well as some comprehensive requirements at the level of emotional values. (Li Xukai, 2016) rhythm is one of the most important elements of music. The most important thing before perceiving music is to perceive the rhythm in music. Whether it is the cultivation of rhythm in the early stage of music learning or professional music training, rhythm is inseparable. However, the cultivation of young students' sense of rhythm in actual teaching is difficult. are often not given the attention they deserve.

In this study, we use Orff music teaching theory as the research framework, which includes different aspects of cognition, behavior and emotion. Under this theoretical framework, we seek to develop training courses, improve the existing music training mode, and improve students' sense of music rhythm. This article sorts out the theoretical knowledge of Orff music teaching theory. (Fang Shaomeng, 2016) tries to effectively improve students' sense of music rhythm from multiple perspectives. It is hoped that by using Orff music teaching theory to develop training courses, students' sense of music rhythm can be improved. The specific content includes: 1) the introduction and analysis of the Orff music teaching method, analyze the influence mechanism of Orff music teaching on music rhythm skills. 2) design and implementation of courses based on the Orff music teaching method, to cultivate students' ability to rhythm and skills (Wang Yixuan, 2022). 3) through questionnaire surveys and experimental research, the influence of courses based on the Orff music teaching method on students' music rhythm skills, explore the application value of Orff music teaching method in terms of music rhythm skills, and 4) through data analysis and comparison, summarize the improvement of courses based on the Orff music teaching method on the improvement of children's music rhythm skills, put forward suggestions for further improvement and improvement, and provide reference opinions for the development of music education.

In the current music education, many teachers and students have realized the importance of music rhythm sense, but there are many problems in the actual teaching process. Traditional music teaching methods often only pay attention to the

transmission of knowledge and skills, but ignore the dominant position of students and the cultivation of creativity and imagination in the learning process. This teaching method is easy to make students feel boring, unable to stimulate their interest in and enthusiasm for music. Therefore, we need to find a more scientific and effective way of music teaching to improve students' sense of music rhythm. (Johnson and Golfin, 2015) studies show that creative activities can enable students to better perceive and understand the rhythm of music in practice, and then cultivate students' creativity and imagination. Through a series of unique teaching methods and means to improve the students 'sense of music rhythm, by guiding the students to listen, imitate and create rhythm, help them to better perceive and understand music rhythm, through the expression of physical movement and creative activities, can stimulate students' creativity and imagination, at the same time improve performance ability and confidence at the same time. (Bachman and Caffo, 2014) also found that through the training course of Orff music teaching theory, students' sense of music rhythm was significantly improved, and their interest and enthusiasm for music were also enhanced

Wang Yixuan (2022) pointed out Orff music teaching method is a very applicable music teaching method, and it is also an interactive music teaching method, which shortens the distance between students and music, as well as the distance between teachers and students, and at the same time enables students to When playing music, you can get a comprehensive and rich experience, so that students can learn happily and easily, improve students' music perception, and also strengthen the communication between students and other students in music, and cultivate students' all-round development. In addition, (Luo Caihong, 2021) music teachers The ability has also been improved, which is conducive to the music teaching work of teachers, and has far-reaching significance for the cultivation of music talents in colleges and universities in our country.

The teaching mode of Orff music teaching theory improves students 'interest in learning and stimulates students' enthusiasm for learning through the introduction of games, by clarifying the teaching objectives before class, students are encouraged to understand the learning objectives and better choose learning

strategies and learning time. (Wang Yipin, 2020) Through the pre-test link, the potential of pre-class learning is stimulated, and students are encouraged to use their spare time to reserve knowledge. Through participatory learning in the classroom, (Yuan Jiayu, 2019) students' interest in learning is stimulated and professional skills are enhanced through group collaboration and practical application. At the same time, interpersonal skills are improved, and students' awareness of active learning and self-directed learning ability are enhanced. Through the post-test and summary links, improve the ability of self-monitoring, evaluation and reflection.

In summary, there are some problems and challenges in the application of Orff music teaching theory both at home and abroad. Through study design and empirical analysis, this study aims to improve college students through the development of training courses, and provide a new idea and method to solve the existing problems. At the same time, the study also explores the influence of Orff music teaching theory on the teaching model, and the research limitations and challenges, and proposed corresponding coping strategies. At the same time, the results of this study also provide some enlightenment and prospects for the future related research.

Objectives

1. To develop of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students.
2. To compare students' musical rhythm skill before and after training course based on Orff music teaching theory

Research Hypothesis

After the training course based on Orff music teaching theory , the students' musical rhythm skill has been improved obviously.

Scope of the Research

Population and the Sample Group

Population

The population of this research was 100 first-year students majoring in music education in Yunnan Communication Vocational and Technical College, with 3 classes and 30 students in each class.

The Sample Group

The sample group of this research was 30 First-year students with mix ability (strong, medium and weak) from Class 1, majoring in music education in the first semester of the academic year 2023 of Yunnan Communication Vocational and Technical College, through the cluster random sampling method.

The Variables

Independent Variable: Training course based on Orff music teaching theory

Dependent Variable : Musical rhythm skill

Content

This research was based on the course "Orff music teaching theory". The course is divided into the following 3 parts, totaling 12 hours

- | | |
|---|---------|
| 1. Module1: Theoretical knowledge | 4 hours |
| 2. Module2: Physical training | 4 hours |
| 3. Module3: Musical instrument training | 4 hours |

Time

The study period from February to October 2023 divided into the following phases:

1. Develop proposal research in February 2023.
2. Modified and completed 1) training course activity plans based on Orff music teaching theory and 2) musical rhythm skill measurement form from March to July 2023.
3. Experimental research in July 2023.
4. The formal research was conducted from August-September 2023.
5. Summarized the research, completed the research thesis, and published the paper from September-October 2023.

Advantages

1. For student: Orff music teaching method is conducive to students' understanding of music theory, but also increases students' interest in learning and stimulates students' performance and creativity

2. For teacher: The Orff music teaching method is a very applicable music teaching method, and it is also an interactive music teaching method, which shortens the distance between students and music, as well as the distance between teachers and students, and has a great impact on the ability of music teachers. It is also improved, which is beneficial to the music teaching work of teachers, and has far-reaching significance for the cultivation of music talents in colleges and universities in our country.

3. For school: Orff music teaching method is in line with the direction of my country's music education curriculum reform, and provides a lot of reference for the school's music teaching curriculum.

Definition of Terms

Training course is a training course and curriculum activity plans based on Orff music teaching theory are designed to help individuals gain knowledge, skill and competencies in a specific are. this is structured and delivered in a way that allows participants to learn through a combination of lectures, demonstrations, hands-on activities and assessments.

Orff music teaching theory was created by Orff, a famous musician in the Federal Republic of Germany. This is an original music education system. It endows music education with a new anti-traditional concept and method , Orff music teaching theory have 4 steps: 1) Introduction, 2) Lecture, 3) Practical exercises, 4) Summary

Training course based on Orff music teaching theory is a program designed to provide music educators with the necessary skills and knowledge to effectively teach music using the Orff approach. The course typically includes hands-on training in the use of percussion instruments, vocal techniques, movement, and dance, as well as instruction in Orff philosophy and curriculum development.The Orff approach

emphasizes active participation, improvisation, and the use of rhythm, melody, and movement to help students develop their musical skills. Through the training course, music educators can learn how to incorporate these principles into their teaching, and provide a dynamic and engaging music education experience for their students. In addition to developing practical skills, the Orff music pedagogy development training course also provides opportunities for participants to explore the theoretical and philosophical underpinnings of Orff. This can help educators develop a deeper understanding of the approach, and its potential to enrich the lives of their students.

Step 1 Introduction: the introduction stage is the first part of the course at the beginning of the course. The purpose is to attract students' attention and attract students' interest. Teachers can import them by songs, games, stories, etc., allowing students to enter the music world and create a good learning atmosphere. The introduction process should make full use of the students' interests and imagination, so that students can feel the fun and beauty of music.

Step 2 Lecture: this stage is an important part of the Orff music teaching method. The main purpose is to teach students music knowledge and skills. During the explanation stage, teachers can introduce the basic knowledge and performance skills of music to students through singing, jumping, and playing, so that students can understand and master the nature and laws of music. The explanation link should pay attention to explaining the levels and organized ways, so that students can gradually master music knowledge and skills.

Step 3 Practical exercises: practice exercises are an important part of the Orff music teaching method. The main purpose is to allow students to master music skills and performance skills in practice. In the practice practice, teachers will guide students to perform practical activities such as dancing, percussion, chorus, etc., so that students can feel the fun of music in a variety of music practice, understand and master the skills and performance skills of music. The practical session should pay attention to inspiring students' thinking and guide students to create and perform independently.

Step 4 Summary: the summary stage is the last part of the course at the end of the course. The purpose is to allow students to reflect on the content of

learning and consolidate the music knowledge and skills they have learned. Teachers can summarize the content of the whole lesson, ask questions, and allow students to discuss group discussions to allow students to summarize the content learned, consolidate and deepen the knowledge and skills they have learned, and lay the foundation for the next study. In summary, we must pay attention to the growth of students and encourage students to gradually improve their artistic expression ability.

Musical rhythm skill means through knowledge and practice to understand, perceive, express and master rhythm in music . It includes rhythm theory knowledge, basic rhythm recognition, rhythm change understanding, rhythm recognition, rhythm playing skills, rhythm perception and mastery, musical expression, cooperative playing ability, music creation ability and rhythm improvisation. Through the musical rhythm skills, students can more accurately grasp the rhythm elements in the music, remember and master a variety of complex rhythm types faster, and better understand the emotion and expression in the music.

Undergraduate students from Class 1, First-year, Music Education Major, Yunnan Communication Vocational and Technical College

Research Framework

The development of training course based on Orff music teaching theory to improve musical rhythm skill of first-year students of undergraduate students. The research concept framework is as follows:

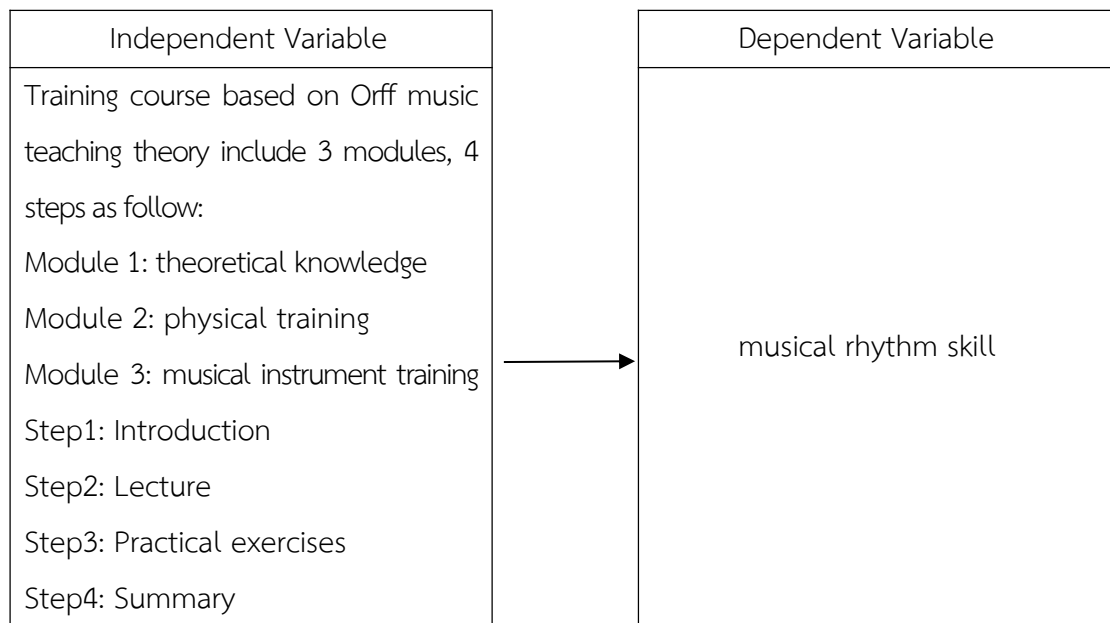


Figure 1.1 Research Framework

Chapter 2

Literature Review

This title research The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students,the following literature were studied:

1. The Development of Training Course
2. Orff music teaching theory
3. Musical Rhythm Skill
4. Related Research

The details are as follows.

The Development of Training Course

1. Definition of training course development

Cambell, J (1971) states that training refers only to instruction in technical and mechanical operations while development refers to philosophical and theoretical educational concept. Training is designed for non- managers while development involves managerial personnel. Training courses are typically designed for a short term, stated purpose, such as the operation of some piece(s) of machinery while development involves a broader education for long-term purpose. Training is for short-term while development is for long-term. Training is for specific job related purpose while development is for general purpose.

Steinmetz, Lawrence (1996) notes that training is a short-term process, utilizing a systematic and organized procedure by which non-managerial personnel learn technical knowledge and skill for a definite purpose. Development on the other hand is a long term educational process utilizing a systematic and organized procedure by which managerial personnel learn conceptual and theoretical knowledge for general purpose.

Hu Lianfeng (2005) defines training course development refers to the process of designing and creating an educational program or curriculum with specific learning objectives. These courses are often designed to provide learners with knowledge, skills or abilities,

whether in an academic, professional or professional environment. Training course is an important part of the construction of education training resources, is the focus of the construction of curriculum resources emphasizes the problem oriented curriculum development process, through demand analysis, course design, curriculum development, curriculum evaluation four stages, with the power of the team, the development of course products, in order to improve the pertinence, practicability and interactive.

In conclusion, training course development means recreating or improving existing courses. To conform to a changing society. The learning experience is planned and developed to guide the Teaching and Learning

2. Training course development process

Wichai WongYai (1990). proposed three unified training course development processes, starting with a curriculum drafting system. The curriculum implementation system and the course assessment system, each of which has the following details and procedures:

1) The curriculum drafting system consists of defining the curriculum by looking at the consistency with the subject content. Social, economic, and political conditions After that, begin to shape the curriculum, namely, the formulation of principles, structures. Course composition Objectives, content, learning experience and evaluation After that, the quality of the course was checked through experts or seminars, and pilot trials were conducted, as well as research findings and revisions of the curriculum before implementation.

2) The curriculum usage system consists of obtaining course approval from an agency or ministry, implementing a curriculum usage plan starting with the promotion of the course. Personnel preparation, budgeting and course materials Support services provide facility preparation, management systems and workshops, and follow-up on curriculum implementation. After that, enter the curriculum administration system by implementing a plan of instructional activities, lesson plans. Teacher Manual Study Guide Instructor's Preparation Learner readiness and academic evaluation

3) Evaluation system, which consists of planning the evaluation of the use of the curriculum, both sub-assessments. Consolidated assessment, curriculum system

assessment Management system and student achievement After that, collect data, analyze data, and report data accordingly.

Hao Jun (2007). With my country's accession to the WTO and world economic integration, schools are increasingly aware of the importance of training. Training can enhance students' cohesion. If colleges and universities want to capture more of the training market, they need to continue to explore and develop operational and specialty courses, especially developing training programs for single industries. In developing training programs, developing training courses is a core issue. The development of training courses is based on the school, the market and the school. Therefore, it is necessary to conduct in-depth investigations into market demand, current status of teachers, and school conditions. The survey results have become an important basis for the development of training courses; the formulation of training courses is not limited to designing course plans, establishing course structures, establishing various courses, formulating course standards, and preparing teaching materials. approach to building a curriculum model that integrates development, implementation, and evaluation

Wanee Niamhom (2021) the development and evaluation of the quality of the training course to teach in a classroom was comprised of seven different components: 1) the curriculum's theory and rationale, 2) the curriculum's intended purpose, 3) the structure of the curriculum, 4) training units, 5) training approach, 6) training materials, and 7) assessment and assessment. While developing a leading training course for expert assessment, it was discovered that it was ideal and capable of leading for training purposes.

In summary, from the above-mentioned course development process. Suffice it to conclude that in order to develop a curriculum, the basics should be studied. Prepare a draft course. Implementing the curriculum, evaluating the curriculum, and improving it to ensure completeness and efficiency.

3. Training course Implementation

Thamrong Buasri (1999). proposed the idea of how the training course could be widely used in educational institutions. There are four things to do:

- 1) Planning to replace the old one.
- 2) Preparation before implementing the course

3) Readiness check

4) Course administration

Wilot Wattana Nimitkul (2005). In summary, the concept of training course implementation is a task or activity involving multiple individuals from the administrative level to the instructor level, the scope and task of implementing the course is therefore extensive and requires careful and careful action. This may be summarized as the principles of curriculum implementation as follows:

1) There should be planning and preparation for the implementation of the course.

2) There should be a central and local panel of individuals in the field of preparing for the implementation of the curriculum, promoting support and monitoring and evaluation.

3) The implementation of the training course should be carried out in accordance with the procedures already planned and prepared.

4) Factors that will contribute to the successful implementation of the course should be provided, such as budget, materials, equipment, etc. Course materials and learning resources, etc.

5) Instructors should be fully and seriously developed to increase the efficiency of training course implementation.

6) The department should be set up with special experts to support and develop teachers.

7) There should be periodic performance evaluations that must be clearly defined in the action plan. The data obtained from the evaluation will be analyzed to improve both in terms of improvements and orientations for the implementation of the training course to be more effective.

Wang Liping (2013). Since training course implementation has been paid more attention, research on curriculum implementation has sprung up like mushrooms after rain. However, there has been no conclusion on the concept of training course implementation. Every scholar has his own understanding of curriculum implementation. At present, the concept of training course implementation can be roughly divided into the following categories:

1. Training course implementation is the process of putting innovation into practice, the process of putting new curriculum plans into practice, and the process of concretizing the training course created through the compilation process and making it effective; curriculum implementation is the process of putting the compiled curriculum into practice. The process of putting the curriculum plan into practice is to realize the expected curriculum ideal, achieve the expected curriculum goals, and realize the expected educational results.

2. Training course implementation is the process of teaching and learning. It is a process in which learners participate in planned learning opportunities. Training course implementation is actually teaching.

3. In a sense, training course implementation is the activity of transforming training course theory into curriculum practice, which is an indispensable and important link in curriculum development.

Gautam Kumar Chaudhary (2015) Training course implementation entails putting into practice the officially prescribed courses of study, syllabuses and subjects. The process involves helping the learner acquire knowledge or experience. It is important to note that training course implementation cannot take place without the learner. The learner is therefore the central figure in the curriculum implementation process. There are various factors that influence training course Implementation like the learners, resource materials and facilities, the teacher, the school environment, culture and ideology, instructional supervision and assessment.

Gülçin Karakuş (2021) Training course implementation is a fulfillment of officially prepared course content and process an application of ideas and innovations to teach knowledge, skills, concepts, and interpretations ,daily classroom activities involving students and teacher, a way to reduce differences, an activity conducted to implement an idea or reform, that aims to transform curriculum into classroom activities and to create an attitude towards students accepting and participating in these activities, instruction of subjects as determined by rules , a systematic process that foresees successful completion of each stage, from the lowest level to the highest.

According to the above information, the experts introduced the characteristics and development principles of the training course, and the author summarized the

concept of the training course, the training plan of the training course include: 1) content, 2) explanation, 3) objective of learning, 4) training course training activity, 5) instructional media 6) evaluation method, 7) assessment tool

3. Training course evaluation

Course evaluation is the process of verifying that a course is created. Once it has been implemented, how does it work? How much of the aims are achieved? In order to correct what is the problem, the flaws, and make the developed curriculum a good one, which scholars have summarized as follows:

Li Yanbing (2002). Course evaluation: It is the process of studying the value of the course, that is, based on certain educational goals, using certain evaluation techniques and means, and systematically collecting, analyzing, and organizing information and materials to make value for the curriculum preparation process, curriculum plans and curriculum effects. process of judgment

Wilot Wattana Nimitkul (2005). concludes that curriculum evaluation refers to the consideration, comparison, and judgment of the elements in the curriculum system that are interrelated. How consistent is there between standards, aspirations, and practicality? How effective is that course? What are the implications of using that information to improve the curriculum.

Jennifer R. Kogan, Judy A.Shea (2007). Course evaluation is deciding the content of the evaluation—what are the questions that will be asked that will in turn lead to a decision regarding the impact or value of a course. The evaluation could focus on the process of offering a course, the outcomes achieved, or both. Most often, course evaluation focuses on learners' evaluations of processes and combines evaluation of teachers with evaluations of other course features such as the educational content

Bang-om Sereerat (2010). states that curriculum evaluation refers to comparative consideration and judgment on how elements of a curriculum system relate to each other. How consistent is there between standards, aspirations, and practicality? How effective is that course? What are the implications for using that information to improve the curriculum?

Blanka Frydrychova Klimova (2013). The course evaluation is considered to be one of the very valuable tools of teaching and learning since it can provide useful

feedback both for teachers and their institution about the quality of education. Moreover, it can reveal its impact on student's learning and teacher's practices.

In conclusion, it can be concluded that the course evaluation is an examination to find out whether the created course achieves its intended aims. What quality should be corrected or improved, so that the results of the assessment can be used to benefit the further development of the training course? In developing the training course, there are steps to be taken by creating tools to collect data, analyze data, improve, revise, and implement.

Orff music teaching theory

1. Meaning of Orff music teaching theory

Hu Meitong (2014). analyzed the feasibility of Orff teaching method in primary school music teaching, and introduced the application of Orff teaching method in rhythm, action, performance form, game teaching and musical instrument training. In the research, we analyzed the teaching strategies of Orff teaching method in primary school music class, put forward the combination of observation, game, performance, performance, creation and editing, and applied the teaching steps of game introduction, knowledge explanation, practical practice and summary to the music class.

Ye Xiaochen (2018). points out that: music teaching should not be limited to music content itself, but should be closely connected with dance, body movements and language, etc. , Pass on boring, monotonous music theory teaching content to students. This method not only increases the interest of knowledge, but also improves students' perception and creativity of music knowledge through the absorption and reference of various artistic knowledge contents.

Zhang Qian (2018). points out that: Orff music teaching method, making full use of the essential characteristics of music to carry out music teaching, so that students can have an emotional resonance with music through listening, combining actions and language, and improve their appreciation, perception and understanding of music Ability to understand the thoughts and feelings generated by music in the spiritual world, and feel the unique charm of music. In the process of using the Orff

music teaching method to carry out teaching, it not only closely connects music elements such as dance, drama, and rhythm, but also effectively uses visual arts such as painting and sculpture, emphasizing the humanistic factors in music, and advocating that music education should persist People-oriented educational philosophy.

Wang Yiqin (2020). believes that music is interesting and can be integrated with vivid and interesting game elements. Music can be played to improve children's music ability. Orff once highly, apply the game to pre-school teaching plan, he thinks the effective preschool education teaching activities is the game teaching, preschool children teaching should start from the game of the arrangement of the music knowledge to the game, from the introduction of the game, help students to accept new areas, new knowledge, also help to stimulate students' creativity. A relaxed environment is more helpful for students to understand and absorb the professional knowledge of music, and the vitality of the classroom can also be fully stimulated, so as to improve the efficiency of education and teaching.

Li Jumei (2021). pointed out that: the so-called Orff music teaching method, refers to on the basis of understanding, the music language, music, dance and body movements applied to the actual teaching process of a teaching method, can through folk songs, nursery rhymes and fairy tale resources to stimulate students' interest in music knowledge, guide students to listen to music, music, and realize the creation of music. By applying Orff music teaching method to music rhythm teaching, the students' music rhythm can be cultivated through the training of Musical Instruments such as triangle iron, double ring ring, bell string and tambourine, and realize teaching and entertainment through the teaching method of gamification. On the one hand, students' interest in learning music rhythm is also fully stimulated. In addition, the orff music teaching method applied to primary school music rhythm teaching, for students' independent learning ability, imagination ability and creative ability development has a positive role, not only can let students happily grasp the teacher of music knowledge, also can let the student to music knowledge learning for a long time of learning enthusiasm, let the student on the basis of correct understanding of various music elements, realize the development of innovative thinking.

There are several interrelated and important elemental steps in Orff music teaching theory, and many scholars have come up with different elemental steps for the Orff music teaching theory as follows:

Table 2.1 Synthesis steps of Orff music teaching theory

Author	Li Jumei (2021)	Ye Xiaochen (2018)	Hu Meitong (2014)	Zhang Qian (2018)	Wang Yiqin (2020)	My Research detail
Step1	Introduction	Introduction	Introduction		Introduction	Introduction
Step2		Lecture	knowledge explanation	Lecture		Lecture
Step3	Practical exercises		Practical exercises	Practical exercises	Practical exercises	Practical exercises
Step4	Summary	Summary	Summary			Summary

Based on Table 2.1, the researcher analyzed and synthesized and distilled the literature, concepts and studies related to Orff music teaching theory, which Li Jumei (2021), Ye Xiaochen (2018), Hu Meitong (2014), Zhang Qian (2018), Wang Yiqin (2020). We can be synthesized as follows: 1) Introduction. 2) Lecture. 3) Practical exercises. 4) Summary.

My Research detail include: 1) Introduction: at the beginning of teaching, we can attract students' attention by asking questions, telling stories or playing games, stimulate their interest in learning, and pave the way for the subsequent teaching steps. 2) Lecture: according to the teaching syllabus and students' learning needs, the teacher will elaborate and explain the content of the teaching material in detail, so that students can have a deeper understanding of the knowledge. 3) Practical exercise: let the students apply the theoretical knowledge to practice through practical operation, improve their practical ability and innovation ability. 4) Summary: in the final stage of teaching, teachers will review and sort out the main knowledge points of this lesson, emphasizing important concepts and methods to help students consolidate their memories.

2. Importance of Orff music teaching theory

Tan Xiaozheng (2019) point out the Orff music education system is one of the most advanced music education systems in the world. It emphasizes an original music education. That is, a natural and instinctive music education that everyone can learn and experience. The Orff teaching method clearly points out that the result of teaching is not important, but the teaching process is important. When the teacher gives a certain task to the students, let the students do it according to their own conditions, methods and wishes as much as possible, so that we can learn actively, display imagination and originality. And this coincides with the current quality education and the requirements for talents.

Yuan Jiayu (2019) point out among the world's music education systems, the Orff music education system is one of the most mature systems. It emphasizes the original music education and advocates learning and experiencing music naturally and instinctively. The teaching method proposes that the most important thing in teaching is the process. That is to say, when teachers assign tasks to students, they should do it according to the students' own wishes, conditions and behaviors as much as possible, so as to ensure that students can give full play to their originality and imagination.

Yan Xinzhen (2019). In recent years, the application of Orff music teaching method in music teaching in colleges and universities can meet the higher-level music learning needs of students, and is also conducive to improving the teaching practice ability of college students. Compared with the traditional music teaching methods in colleges and universities, Orff music teaching method has many advantages. Influenced by the music industry, it is highly respected by people in the music industry. It can be said that since Orff music teaching method was introduced into our country in the 1980s, after years of development, people have a deeper understanding of the importance of Orff music teaching method. Especially since the new curriculum reform, our country emphasizes respecting the subject status of students, meeting the needs of students, and paying more attention to students' interest and quality in music learning. It can be seen that Orff music teaching method meets the needs of my country's new curriculum reform, and both of them focus on the all-round development of

students. Therefore, the application of the Orff teaching method in music teaching in colleges and universities is conducive to further deepening the reform of the new curriculum.

Zhao Shuang (2020). Since the Orff music education system mainly emphasizes the use of folk music for teaching, but the ability of Chinese college students to accept folk music is very poor, so we should especially strengthen the use of folk music to educate Chinese college students. Materials for music teaching, and through the Orff music teaching method, strengthen the understanding of Chinese college students to their own national music, and at the same time promote the development of my country's national music culture.

Wang Yipin (2020). In the music teaching of colleges and universities in my country, the implementation of Orff teaching can enable students to learn complex teaching content as soon as possible when learning music. Students can arrange some simple rhythm games in the early stage of learning, so that students can easily accept it. Familiar with the rhythm problem, the teacher can do some comprehensive exercises, practice different rhythms, and also add some simple performance movements. With the deepening of this part, you can also add some musical instruments. Through this step-by-step process, students can easily master such complex learning content, which is also conducive to students' understanding of music theory, and at the same time increases students' interest in learning.

In conclusion, the above experts summed up the importance of Orff music teaching theory. The successful promotion and application of Orff's music education concept all over the world has changed not only the music teaching mode, but more importantly, a new music concept. These changes have also prompted the continuous improvement of music courses, and constantly become more distinctive. In the application of music classroom, it makes the teaching classroom more vivid and relaxed, and can stimulate students' interest and imagination in music activities. The rich and colorful teaching content can improve students' comprehensive music ability.

Musical Rhythm Skill

1. Meaning of musical rhythm skill

Gao Ming (2014). pointed out that the most direct method of rhythm training is to create a musical environment for students. In the world of music, rhythm occupies the main position and is the soul of the whole music. Any music has a very distinct rhythm. , Rhythm training should be taken as the first lesson of learning, and any object will make different sounds, and when combined together, it will become a brand new rhythm music. Since there are many changes in rhythm, this is just one way to stimulate students' imagination and creativity. For example, in music teaching, use multimedia courseware to provide students with rhythmic music, first use simple and common rhythms to attract students' attention, and let students appreciate music with questions

Luo Ling (2016). It is the most basic element of music and the core element of long and short sound organization and connection. Rhythm in music is based on universal and objective rhythm, based on human production labor, social life and Physiological and emotional needs, and then design and create, and refine the normative results. The status of rhythm in the entire music category is very important. It not only organically organizes various music to form music that develops in an orderly manner, but also gives music a strong vitality.

Gu Meixia (2019). The author's opinion is:rhythm refers to the ability to be changed by the rhythm of music, which is embodied in the time relationship between notes. The sense of rhythm can be said to be an instinct of human beings, so everyone has a sense of rhythm, but some people have a more obvious or stronger sense of rhythm, while some people may feel a little slower, but it is still required People use music education to further tap people's potential. Rhythm can be said to occupy a key position in music, which can shape the shape of music and realize the expression of emotion. Rhythm is like soul to music. If music lacks ideal rhythm, it loses its own soul.

Zhang Wenjun (2019). This study point out:rhythm is the pulse of music and one of the basic elements of music. Any music is inseparable from a clear rhythm. When students learn singing, dancing, instrumental music and other activities,

the first thing they have to face is rhythm. Good or bad, it directly affects our music teaching, and monotonous and boring rhythm training inhibits students' interest. If teachers can turn boring rhythm training into a game that makes students interested, then students can make passive instilling Transforming into taking the initiative to ask for learning, this not only cultivates students' interest, but also improves classroom efficiency, gradually solves the rhythm difficulties in teaching, and lays a stable foundation for students to better understand the emotions expressed in songs; While mastering the rhythm of music proficiently, we should also cultivate students' creative thinking, review from different angles, and master the knowledge they have learned. Students can not only sing and read the rhythm, but also memorize the rhythm, and use the rhythm flexibly.

Huang Ziqun (2020). pointed out that the teaching of music rhythm cannot be separated from Musical Instruments. In teaching, teachers should actively create conditions for students to play Musical Instruments. In the process of instrument playing, students can carefully appreciate the different music rhythm of different instruments, so as to deepen their cognition of the sense of rhythm. Playing Musical Instruments is the dream of many students, but due to various reasons, students lack such practical opportunities in life, so teachers can make full use of school Musical Instruments, stimulate students 'enthusiasm to participate in music teaching, cultivate students' interest in music and sense of music rhythm. The choice of instruments should be based on percussion instruments, so that students can operate the experience will be stronger. In teaching, teachers can play the playing videos of Chinese national instruments and western percussion instruments for students, so that students can experience the sense of rhythm transmitted by the two styles of instruments, increase students 'experience of music rhythm in analysis and comparison, and improve students' interest in music rhythm teaching. In the practice teaching, teachers can encourage students to practice the use of Musical Instruments, so that students can deepen their understanding of the rhythm of music in the operation process..

In conclusion, based on the above expert's summary of the definition of music rhythm, I think the rhythm is the soul of music. Music organizes monotonous

melody sounds with ups and downs through rhythm, which arouses human resonance and thus produces emotional resonance. Rhythm training in music can enhance people's musical imagination and creativity. Therefore, when conducting music teaching, rhythm training must be taken as a prerequisite for teaching. It is necessary to consolidate students' basic music skills and use rhythm training to guide melody teaching and harmony teaching. Gradually accumulate the foundation of music, transform the knowledge in concepts into technical practice, and then reveal the essence of music

2. Importance of musical rhythm skill

Li Xukai (2016). The author's opinion is: at present, rhythm training in music classrooms in colleges and universities has been welcomed by many teachers and students. In the past, students often felt boring in the process of learning music, did not know how to appreciate it, and were more repulsed by the learning of professional music skills. However, through basic rhythm training, strengthening students' ability to perceive rhythm has a positive impact on improving learning efficiency. Moreover, most college students are in the imitation period of music learning. Through rhythm imitation, students' music courses not only add interest, but also mobilize students' enthusiasm and increase the participation in music classes.

Tian Bingjie (2016). The author's opinion is: the importance of music rhythm training for college students is also reflected in the fact that students' musical creativity and rhythm imagination can be cultivated through rhythm training. Teachers infiltrate through different methods in the teaching process to instill a sense of rhythm to students accurately and comprehensively. Let students have rich imagination under the sense of rhythm and inspire music creation inspiration. In the public art disciplines of colleges and universities in my country, rhythm training is a strong support for music creation teaching, and it can also inspire students' musical thoughts and shape their personal cultural connotations. Therefore, rhythm training is very important in college music teaching.

Cao Yeyan (2017). The author's opinion is: the reform and opening up has brought the world's advanced music teaching methods to our country. The art courses in colleges and universities have been impacted by new teaching concepts

and teaching models. At the same time, educators have also deeply felt the value and significance of rhythm training in music teaching. As the rhythm of the music can stimulate the abilities in the students' bodies, students can also follow the rhythm and melody of the music and integrate their body movements into it. From this, it is concluded that rhythm training has great value and significance for building students' personality, refining their potential abilities, and exerting their creativity.

In conclusion, through the above experts' understanding and analysis of the sense of music rhythm, I think the importance of music rhythm in music education. Rhythm training can stimulate students' interest in learning and cultivate students' sense of music. Through rhythm training, students' music literacy can be improved, and students can have a deeper understanding of music knowledge and Appreciation of works, you can also learn music knowledge according to your own interests. These have greatly promoted the breakthrough of difficulties in music teaching. Therefore, rhythm is the lifeblood of music, and its value in music is irreplaceable. Using diversified rhythm training can help students improve their music knowledge space.

Measurement and Evaluation of training course

Zhao Bing (2013). This paper under the background of the new curriculum reform high school music classroom teaching change and effect for the research topic, focus on the curriculum after the teaching design has changed, whether the classroom teaching effect is improved, whether the school investment, teacher leading role and students main body status changes, teachers' quality and skills are to meet the practical needs, and many other aspects. To demonstrate the necessity of curriculum reform in high school music classroom teaching, importance, scientific, to improve the quality of high school music classroom teaching in the future, explore the better model, lay a solid foundation, this paper first expounds the high school music classroom teaching research background and significance, and then analyzes the domestic research status and methods, finally summarizes the teaching design, music classroom teaching evaluation, according to the actual situation, the school designed the music classroom teaching evaluation, in addition to in-class performance, more important is music comprehensive performance, including artistic ability, attendance,

performance, training performance and emotional will, etc. At the same time, it is necessary to return to the objective truth through evaluation, evaluate the true feeling; evaluate the innovative thinking and the sincere dialogue to ensure the effect of music classroom teaching evaluation.

Rungrudee Klaham (2018). This research and development aimed to organize a training course focusing on teachers' analytical thinking skills in measurement and evaluation. The three phases of the study were as follows: 1) The current state of the teachers' problems and needs of teachers in analytical thinking skills, 2) A training course was developed, and 3) Designing a course trial and efficacy assessment were implemented through one-group pretest-posttest design during May 11-12, 2017. The sample was 440 teachers teaching at elementary and secondary schools level from five regional regions in large schools, Thailand. They were chosen via multi-stage random sampling for phase 1. Five experts were selected by purposive sampling in phase 2. A total of 30 teachers from the sample volunteered to take part in the research. Research instruments included interview, questionnaire, test, assessment form and training course. Each instrument had a content validity value between .80 -1.00 and Cronbach's alpha coefficients reliability were equal to .93-.97 The test had difficulties ranging .30-.77 and discrimination powers ranging .27-.60 Data analysis employed mean, standard deviation, percentage, paired samples test. The Priority Needs Index (PNI modified) was used and content analysis used for the interview data.

Gülden Gürsoy , Mustafa Aydogdu (2019). The objective of the present study is to examine the effects of content-associated applied measurement and evaluation course on pre-service teachers' assessment literacy, their attitudes towards the measurement and evaluation course, and their field-specific content knowledge. Furthermore, the study aims to reveal the pre-service teachers' views on content-associated applied measurement practices. The mixed method research approach, which combines qualitative and quantitative research methods, was used in the study. The quantitative data collection was conducted with 90 science teacher candidates. The qualitative data collection was conducted with six teacher candidates from the experimental group. The Classroom Assessment Literacy Inventory (CALI), Measurement and Evaluation Course Attitude Scale (MECAS), Academic Achievement Test (AAT), and Focus Group

Interview Form were used as the data collection tools in the study. It was found that the content-associated applied measurement and evaluation course improves the measurement and evaluation literacy of the candidate teachers, fosters their positive attitudes towards the course of measurement and evaluation, and increases their content knowledge. Furthermore, the focus group interviews with the pre-service teachers both helped explain the reasons behind the quantitative results, and provided detailed information about the degree of effectiveness of the method applied in the teaching process.

Muhammed Akıncı , Erdoğan Köse (2023). This study aimed to make a meta-evaluation of the study titled Evaluation of Measurement and Evaluation in Education Curriculum. For this purpose, the study was conducted to determine the extent to which the research complies with the Program Evaluation Standards determined by the Joint Committee on Standards for Educational Evaluation (JCSEE). Methodologically, meta-evaluation procedures were adopted in the research, and the Evaluation Accountability Standards determined by JCSEE were considered in the transactions carried out in this context. The Program Evaluation Standards Checklist developed by the researchers was used to control whether the meta-evaluated research met the required standards. For this purpose, controls were made by an internal and an external evaluator to reveal whether the study has the qualities of accurate planning, valid and reliable data collection, performing the necessary analyzes, and reporting, which should be in an effective program evaluation research. The results of the meta-evaluation indicate that the study under examination demonstrates a high degree of alignment with the Program Evaluation Standards used by internal and external evaluators, with a concordance rate of 88.33%. In addition, according to both evaluators, Utility Standards were met by 88.9%, Feasibility Standards by 75%, and Accuracy Standards by 100%, while Propriety Standards were met at a rate of 87.5% according to the external evaluator and 75% according to the internal evaluator. Moreover, the experts think that more information should have been provided in the research, especially about the concepts of cultural values, interests, contexts, and conflicts of interest. Based on the research findings, suggestions were made to conduct program evaluation and metaevaluation studies more effectively.

In summary, through the research of the above experts, the evaluation and evaluation of training courses is of great significance for improving the quality of teaching, ensuring the learning results of students and optimizing the course design. Future research could further explore how more assessment methods can be applied in training course evaluation, how training outcomes can be measured more effectively and how student feedback can be better integrated into course optimization. In addition, for enterprises and organizations of different industries and sizes, how to customize the training course evaluation system suitable for their own characteristics is also a problem worth studying. These research directions will help to better play the role of training course evaluation and evaluation, and improve the effect of talent training in enterprises.

Related Research

Lisa B. Jorgenson (2010). This literature review focuses on the music education philosophy developed by Carl Orff called Orff Schulwerk. Orff Schulwerk is a child-centered approach to learning music through hands-on techniques, centered on children's natural, elemental behaviors and interests. The philosophies and themes behind the Orff Schulwerk curriculum are examined, including movement, speech, instruments, and creativity and improvisation.

João C.R. Cunha and Sara Carvalho (2012). This study is Orff is a creative music and movement approach developed by Carl Orff and Gunild Keetman. Music teaching and learning processes, supported by a wide range of sources, provides a means for awakening the potential for "being musical", meaning to be able to understand and use music and movement as forms of expression. Natural behaviours are firstly directed into responding to and making music. Carl Orff's idea about Music Education was always to put the practical work in the foreground. Children or adults have "musical potential", but need to experience, act, enjoy, feel and interact in order to get a musical cognitive and affective development (Kugler, 2011). In the Orff approach, musical concepts are learned through singing, dance, movement and the playing of percussion instruments (Orff Instrumentarium). Orff emphasized the use of simple percussion instruments (including body percussion), while building upon human

natural singing voice. He also emphasises the links of music with movement, dance and speech in what he nominated “Elemental Music” (Teachout, 2009). Further intents of Orff approach are the development of a foundation for lifelong enjoyment of music in a supportive atmosphere. Students learn music by experiencing and participating in different musical activities, stimulating not only the concepts of music like rhythm, pitch or tempo, but also the aesthetic qualities of music (Cottone, 2010).

Liao Naixiong (2014). in the book "Orff Music Education Thought and Practice" introduced in detail the development and implementation of Orff music education theory. Orff theory of music education is a method of music education with rhythm and rhythm as the core, which emphasizes the trainees to explore and explore musical elements through games and interaction, so as to improve their musical skills and expression. It also discusses the formation and development of Orff music education theory, as well as the practice and significance of the theory in curriculum design. With a large number of practical cases, the book shows the reader how to apply the theory of Orff music education to students of different ages, and how to personalize the teaching according to the actual situation of the trainees.

Wang Lixin (2014). pointed out the application of Orff music education method in the improvisation of children's songs. It details the application and implementation of Orff music education method in the improvisation of children's songs, and how to cultivate children's creativity and imagination by improvising children's songs. At the same time, the book also provides some practical teaching cases, showing readers how to apply the Orff music education method to the improvisation of children's songs. These teaching cases can provide useful reference for readers and help readers to better apply Orff music education method to the teaching practice of improvised children's songs.

Mohamad Faizal Bin Mat Sham (2016). This study aim of this study is to examine the application of Carl Orff technique in “Rhythm in Words” strategy to enhance pupils’ music note reading skill in a Malaysian primary school in Raub, Pahang. The sample of this study is 17 pupils of Year 4 pupils aged of ten consist of 10 boys and 7 girls. However, only 10 pupils were selected for final test. Two music lessons had been carried out within a month period of time. Observation and group test data

regarding to the aim of this study were collected, analyzed and presented in the table and figure form. Findings show that the sample showed improvement after the two music lessons. Although in short period of time, they can read the musical score without any guidance from the teacher and play it with musical instruments. The data collected by the observation within the lesson and with the group test. The results show that 8 pupils can play the musical instruments spontaneously and without any guidance from the teacher. Meanwhile, 2 pupils need an extra lesson in these “Rhythm in Words” techniques. There are two pupils that had some learning problems that may need more attention from the teacher. Recover session will be given for them in next year. Therefore, based on various research conducted, learning musical rhythm between notes through rhythmic words technique is more effective to enhance pupils reading skill.

Zhao Fengqin (2018). This study mainly discusses the development and practice of Orff's music education theory in China. It introduces in detail the process and challenges of the localization of Orff music education in China, and also summarizes the ideas and methods of Orff music education. It also puts forward the enlightenment and suggestions for the reform of Chinese music education, and shows the application of Orff's music education theory in the field of Chinese music education. By comparing the similarities and differences between music education in China and abroad, this book helps readers to better understand the challenges and opportunities faced by Orff music education theory in the process of localization in China.

In conclusion, the international application of Orff music teaching theory has achieved some achievements, but it still needs further in-depth research and practice. With the development and progress of global music education, the international application prospect of Orff music teaching theory will be broader. Therefore, further exploring the application of Orff music teaching theory in different countries and regions, strengthening the sharing and exchange of educational resources, will help to promote the global development of Orff music teaching theory.

Chapter 3

Research Methodology

The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students the methodology of this research and development :1) to develop of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students, 2) to compare students' musical rhythm skill before and after training course based on Orff music teaching theory ,The researchers have the following procedures;

1. The population / Sample Group
2. Research Instruments
3. Data Collection
4. Data Analysis

The population / Sample Group

Population

The population of this research was 100 first-year students majoring in music education in Yunnan Communication Vocational and Technical College, with 3 classes and 30 students in each class.

The Sample Group

The sample group of this research was 30 students with mix ability (strong, medium and weak) from Class 1, First-year majoring in music education in the first semester of the academic year 2023 in Yunnan Communication Vocational and Technical College, through the random cluster sampling method.

Research Instruments

The research instruments used in this study include 1) training course activity plans based on Orff music teaching theory, and 2) musical rhythm skill measurement form, as detailed below:

1. Training course activity plans based on Orff music teaching theory. The researcher designed 3 module plans using the Orff music teaching theory, totaling 12 hours.

1.1 Use as a guide for developing through learning objectives, content, guideline for organizing measurement and assessment of training course activity.

1.2 Based on the index analysis the core learning content, set learning objective, learning content, and learning time.

1.3 Study of concept, theories related to the theory from document, textbook, and related to the research to create a new training course activity plan.

1.4 The researcher formulated 3 training course activity plans by using Orff music teaching theory and selected 3 modules, 12 hours in total. The detail as follow each training course activity plan in detail according to Orff music teaching theory: 1) content, 2) explanation, 3) objective of learning, 4) training course activity, 5) instructional media, 6) evaluation method, 7) assessment tool. And training course activity as follows:

1) Introduction: according to the training course activity plans and teaching objectives of training courses, teachers need to arouse students' interest in music and establish students' motivation for learning. Import activities can be used in various ways, such as simple games, short music performances, watching music performance videos or through singing, dancing and other activities to stimulate students' interest. The purpose of this stage is to allow the students to gain a perceptual understanding of the music

2) Lecture: at this stage, the teacher gives students a deeper understanding of Orff music teaching theory and some basic concepts of sense of rhythm. At the same time, explain the concept of confusion that students may be confused. Teachers should pay attention to the combination of theory and practice, and provide students with practical rhythm demonstration or video demonstration

3) Practical exercise: at this stage, students will have the opportunity to practice the theoretical knowledge they have learned. Teachers can train students' sense of rhythm through some games or activities. These activities should be interesting and challenging in order to attract students' attention and enable students to

better understand knowledge. Teachers should correct students' mistakes and encourage their progress in time

4) Summary: at this stage, the teachers should lead the students to review and summarize what they have learned. Teachers can ask students to report or show in the group in order to better show the students' gains. In addition, teachers should provide feedback and encouragement to students to stimulate their interest and enthusiasm for music and rhythm, while also correcting their possible mistakes and helping students to further enhance their sense of music rhythm.

1.5 Submit the completed training course activity plans to the tutor, check the consistency and applicability of the content, and make modifications according to the tutor's suggestion.

1.6 Submit the revised training course activity plans to 3 experts for review to verify the accuracy and applicability of teaching content, the consistency of learning objectives, content, learning activities, teaching media, and measurement and evaluation. Find the IOC (Index of Item Objective Congruence). The content consistency standards of the training course plan are as follows:

Rating is +1. There is an opinion that “training course activity plans is aligned with what is being measured.”

Rating is 0. There is an opinion that “Not sure if the training course activity plans matches what was measured.”

Rating is -1. There is an opinion that “training course activity plans does not align with what is being measured.”

Table 3.1 Evaluation results of training course

Training course activity plans based on Orff music teaching theory	hours	IOC	Evaluation results
Module1: Theoretical knowledge	4	1.00	accept
Module2: Physical training	4	1.00	accept
Module3: Musical instrument training	4	1.00	accept

2. Musical rhythm skill measurement form.

2.1 Analyze the content of musical rhythm skill consistent with the training course activity plans.

2.2 Learn theories and methods of musical rhythm skill assessment from the literature and relevant research.

2.3 According to the definition and dimensions of musical rhythm skill, and referring to the musical rhythm skill evaluation instruments of previous researchers, the musical rhythm skill evaluation standard is designed. The scoring criteria and corresponding scores have been established for all 10 evaluation points: 1 point, 2 points, and 3 points. The full score is 30 points. Different scores represent varying degrees of self-directed learning ability. 27-30 points represent strong, 23-26 points represent relatively strong, 18-22 points represent general, 14-17 points represent relatively weak, 10-13 points represent weak

Table 3.2 Musical Rhythm Skill Measurement Form

Evaluation Items	Score and criterion		
	3	2	1
1. Rhythm theory knowledge	Have a comprehensive understanding of rhythm theory and be able to apply it to actual music performance and creation	Have some understanding of rhythm theory, but still need to learn and consolidate	Little understanding of rhythm theory and lack of basic rhythm concepts
2. Basic rhythm recognition	Can accurately understand and recognize the basic rhythm	Able to understand and identify basic rhythms at a basic level, but sometimes deviates	Unable to accurately understand and identify the basic rhythm

Table 3.2 Musical Rhythm Skill Measurement Form (continue)

Evaluation Items	Score and criterion		
	3	2	1
3. Rhythm change understanding	Can accurately understand the rhythm changes in the music	Basically understand the rhythm changes in the music	Unable to accurately understand the rhythm changes in the music
4. Rhythm recognition	Can accurately identify different rhythmic types	Basically accurately identify different rhythm types, but sometimes make mistakes	Unable to accurately identify the different rhythmic patterns
5. Rhythm playing skills	Can accurately play the basic beat and rhythm type	Play the basic beat and rhythm type almost accurately, but often deviate	Unable to accurately play the basic beat and rhythm type
6. Rhythm perception and mastery	Can accurately perceive and master the rhythm in the music	Basically accurate, but sometimes the deviation occurs	Unable to accurately perceive and grasp the rhythm in the music
7. Musical expression	Can express the emotion and characteristics of music through an accurate sense of rhythm	Can basically accurately express the emotion and characteristics of music through the sense of rhythm, but the expressiveness is not enough	Unable to express the emotion and characteristics of music through an accurate sense of rhythm

Table 3.2 Musical Rhythm Skill Measurement Form (continue)

Evaluation Items	Score and criterion		
	3	2	1
8. Cooperative playing ability	Ability to play in harmony with other players and maintain a sense of musical rhythm	Generally able to coordinate with other players and maintain a sense of musical rhythm, but sometimes makes mistakes	Unable to coordinate with other players or maintain the sense of rhythm of the music
9. Music creation ability	Music creation can create diverse and creative rhythm patterns	It is possible to try some new rhythmic ideas when composing music, but more innovation is still needed.	In creating music, the rhythm conception is relatively simple, lack of innovation
10. Rhythm improvisation	The improvisation is steady and it is able to create new rhythm patterns smoothly	There is some rhythm control in improvisation, but there is still room for improvement.	The rhythm of the improvisation is chaotic and lacks stability

2.4 Submit the designed musical rhythm skill measurement form to the thesis supervisor, check their accuracy, and make modifications.

2.5 Submit the musical rhythm skill measurement form created to three experts for measurement and inspection. Experts check the Content Validity and calculate the Index of Item Objective Congruence (IOC). The criteria for determining measurement consistency are as follows:

Rating is +1. There is an opinion that “Confirms that the evaluation criteria meet the specified measurement requirements.”

Rating is 0. There is an opinion that “Uncertain whether the evaluation criteria meet the specified measurement requirements.”

Rating is -1. There is an opinion that “Determine that the evaluation criteria do not meet the specified measurement requirements.”

The consistency indicator of each evaluation content is greater than or equal to 0.50 and is considered suitable for research. The IOC (Index of Item Objective Congruence) value for each item in this evaluation standard is 1.00.

2.6 Revise and improve the scoring criteria, Then try out with students who were not the sample to ensure the quality of the assessment.

2.7 Check the reliability of measurement standards using Cronbach's α Coefficient is 0.92, which can be used for research

Data Collection

The data were collection analyzed as follows.

1. Coordinate with 3 relevant professional scholars and experts, issue official documents of professional scholars and experts of Bansomdejchaopraya Rajabhat University, and provide information on research content and research instruments: training course activity plans and quality evaluation scale, for IOC (Index of Item Objective Congruence). Collect IOC inspection data from 3 professional academic experts.

2. This study is an experimental study which is according to the research tools developed by the researchers, scores were carried out before and after the experiment, and evaluation data were collected in July 2023. The following is the experimental design:

Table 3.3 Experimental design.

Group	Pretest	Experimental	Posttest
R	O ₁	X	O ₂

The meaning of the symbols used in the experimental design.

R means Random Sampling

X means experimental

O₁ means Pretest

O₂ means Post-test

Data Analysis

The data analyzed as follows.

1. Analyze of verified the validity of 1) training course based on Orff music teaching theory and 2) musical rhythm skill measurement form according to the Orff music teaching theory, taking the consistency index as the consideration standard (IOC: Index of Item Objective Congruence).

2. Based on the Orff music teaching theory, evaluate the students' musical rhythm skill before and after the implementation, and use the data obtained from the experiment to analyze the statistical data through the mean value, standard deviation and t-test for dependent samples.

Chapter 4

Results of Analysis

The research "The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students" aims to improve the musical rhythm skills of undergraduate students by using Orff music teaching theory, to study the learning behavior of the first-year majoring in music education in Yunnan Transportation Vocational and Technical College, and compare the music rhythm skills of college students before and after the training when using Orff music teaching theory. The data analysis results are as follows:

1. Symbol and abbreviations
2. Results of data analysis

The details are as follows.

Symbol and Abbreviations

Represent data analysis results based on symbols and semantics. The details are as follows:

\bar{X}	means	average value
SD.	means	standard deviation
n	means	number of students
D	means	scores of difference between pre and post class
df	means	degree of freedom
t	means	statistical data for t-test value
**	means	statistical significance at level .01

Results of data analysis

The study utilized the Orff music teaching theory to improve college students' musical rhythm skill. The researchers conducted research in the following order:

Part 1: The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students

Part 2: Result of compare students' musical rhythm skill before and after training course based on Orff music teaching theory

Part 1: The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students

First of all, the researcher analyze out the background, purpose and significance of Orff music teaching theory through literature research, understood the research status of Orff music teaching theory. finally determined the development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students.

Secondly, The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students, this training course is divided into the following 3 parts, 12 hours in total. The course consists of 3 modules: Module1: theoretical knowledge 4 hours , Module 2: physical training 4 hours., and Module 3: musical instrument training 4 hours. The detail as follow each training course activity plans in detail according to music teaching theory: 1) content, 2) explanation, 3) objective of learning, 4) training course activity, 5) instructional media 6) evaluation method, 7) assessment tool. And training course activity as follows:

1) Introduction : According to the training course activity plan and teaching objectives of training courses, teachers need to arouse students 'interest in music and establish students' motivation for learning. Import activities can be used in various ways, such as simple games, short music performances, watching music performance videos or through singing, dancing and other activities to stimulate students' interest. The purpose of this stage is to allow the students to gain a perceptual understanding of the music

2) Lecture: at this stage, the teacher gives students a deeper understanding of Orff music teaching theory and some basic concepts of sense of rhythm,At the same time, explain the concept of confusion that students may be confused.

Teachers should pay attention to the combination of theory and practice, and provide students with practical rhythm demonstration or video demonstration

3) Practical exercise: At this stage, students will have the opportunity to practice the theoretical knowledge they have learned. Teachers can train students' sense of rhythm through some games or activities. These activities should be interesting and challenging in order to attract students' attention and enable students to better understand knowledge. Teachers should correct students' mistakes and encourage their progress in time

4) Summary: At this stage, the teachers should lead the students to review and summarize what they have learned. Teachers can ask students to report or show in the group in order to better show the students' gains. In addition, teachers should provide feedback and encouragement to students to stimulate their interest and enthusiasm for music and rhythm, while also correcting their possible mistakes and helping students to further enhance their sense of music rhythm.

Third, From the details of the training course development above, The researcher conducted a research experiment 30 first-year students with mix ability (strong, medium and weak) from Class 1, majoring in music education in the first semester of the academic year 2023 of Yunnan Communication Vocational and Technical College, through the random cluster sampling method.

In addition, the researcher evaluated the behavior of students who participated in the development of training course based on Orff music teaching theory Classified according to the content of the course consists of 3 modules: theoretical knowledge, physical training and musical instrument training. The students have behavior As the following details :

The course consists of module 1 : Theoretical knowledge (4 hours)

The Orff music teaching method is a German music education method named after the Carl Orff. The method emphasizes the basic elements of music education-sound, rhythm, melody and harmony, and transforms the learning process into an interactive experience with instrument playing and physical performance. In the training of theoretical knowledge, teachers will start with the most basic rhythm

units, such as beat, beat and rhythm type. As students' comprehension improves, teachers can gradually guide students to explore complex rhythm forms, as well as various drum and beat skills. At the same time, teachers will encourage students to perform creative performances and improvisation to enhance their music perception and performance. Theoretical knowledge include 4 steps as follow:

Step 1 Introduction

1. Participate in games and actively interact: Students will be guided to participate in games, such as music rhythm games, voice games, etc. They will actively interact with teachers and other students, and try to feel and learn the rhythm of music through games.

2. Explore the musical elements in the game: Students will explore the musical elements in the game, such as different rhythms, melodies and tones, and try to understand and master them.

3. Communicate and share with other students: Students will communicate with other students and share their experience and harvest in the game, learn from each other and help each other.

4. Actively use the knowledge they have learned: Students will actively use the knowledge they have learned in the game, such as music rhythm, tone and playing skills, to better understand and master the music rhythm skills.

5. Reflect on the learning process: Students will reflect on their learning process, such as their performance in games, encountered difficulties and learning results, so as to better improve their learning methods and strategies.

Step 2 Lecture

1. Focus on listening: Students will focus on the teacher's explanation, understand the basic concepts and principles of music rhythm skills, and understand the Orff music teaching theory behind them.

2. Active notes: Students will take the initiative to record the teacher's explanation, so as to review and reference in the subsequent exercises and reflections.

3. Thinking and understanding: Students will think about and understand what the teacher says, trying to connect the theory with their existing knowledge and experience.

4. Ask questions: If students encounter any questions or confusion in the process of listening, they will actively ask them to the teacher in order to further understand and master the skills of musical rhythm.

5. Practice and try: Students will try to use the theoretical knowledge they have learned to practice and improve their musical sense of rhythm skills, such as rhythm practice, playing instruments, etc.

Step 3 Practical exercises

1. Participation in practical activities: Students will actively participate in practical activities, such as rhythm games, chorus, dance, etc., to practice and apply the musical rhythm skills they learned in the previous stage and Orff music teaching theory in the previous stage.

2. Group cooperation: Students will conduct cooperative exercises in groups, cooperate, exchange and share their learning experience and feelings, and jointly improve the sense of music rhythm skills.

3. Personalized innovation: Students will be personalized and innovative in practical exercises according to their interests, advantages and creativity, such as creating their own music works, choreography, etc.

4. Feedback and adjustment: Students will constantly adjust and improve their practice exercises through the feedback from teachers and other students to improve the level of musical rhythm skills.

Step 4 Summary

1. Knowledge integration: Students will review and organize the musical rhythm skills and Orff music teaching theory that they have learned throughout the training course, and integrate them into their existing knowledge system.

2. Summary and sharing: Students will share with other students their experience, experience and harvest in the learning process, as well as their insights gained in practice.

3. Mutual evaluation: Students will participate in mutual evaluation, appreciate and affirm each other's progress and achievements, and put forward suggestions and suggestions to promote common improvement. They will plan the

future learning goals and action plan according to the learned learning knowledge and practical experience, so as to better apply the knowledge and skills learned.

4. Teacher comments: students will receive teachers' evaluation and guidance on their learning situation, including their learning attitude, effort, skills and other aspects.

The course consists of Module 2 : physical training (4 hours)

Physical training is a very important link in the Orff music teaching method. It is one of the important means to cultivate students' music rhythm and masterpit This training course aims to introduce the theoretical and practical techniques of Orff music teaching methods to help students deeply understand the importance and practical application of Orff music teaching method. Through this training, students will learn how to improve the sense of music rhythm and grasp of students through the form of limb training, so as to better practice the organic combination of music, limb activities, language and visual elements in the Orff music teaching method, so that students can cultivate comprehensive physical and mental quality while receiving music education.

Step 1 Introduction

1. Active participation and interaction: Students will actively participate in the game activities, understand and master the music rhythm skills through personal participation and experience, and communicate and interact with other students and teachers to share their feelings, ideas and experiences.

2. Skill practice and innovative thinking: Students will use game activities to practice musical rhythm skills, such as playing Musical Instruments, singing, dancing, etc. Some students may use their creative thinking and improvise or adapt their musical rhythm skills.

3. Group cooperation and personality presentation: Students may play games in groups to improve their musical rhythm skills through team cooperation. At the same time, some students may show their personality and characteristics in the game activities, such as performing a dance or singing a song, to express their feelings and feelings.

Step 2 Lecture

1. Dedicated listening and active notes: Students will focus on the teacher's explanation, understand the basic principles and methods of musical rhythm sense skills, and how to use body language to express the rhythm of music. At the same time, they will also actively record the teacher's explanation, so as to review and refer to it in the subsequent exercises and applications.

2. Thinking, understanding and interaction and communication: Students will think about and understand what the teacher says, and try to connect their theoretical knowledge with their existing knowledge and experience. They will also actively communicate and interact with other students and teachers, and share each other's feelings, ideas and experiences, in order to further understand and master the sense of musical rhythm skills.

3. Innovative thinking and Personality display: Some students may be personalized and innovative in their physical training according to their interests, advantages and creativity, such as creating their own dance movements and improvisation. They may also reflect and think about their performance and gains in physical training through reflection and summary, as well as the insights and lessons gained in the training, in order to better apply theoretical knowledge in the subsequent learning.

Step 3 Practical exercises

1. Practice and mastery: Under the guidance of teachers, students will actively participate in practice, and strive to master the skills of musical rhythm and physical training methods.

2. Group cooperation: Students may conduct practical exercises in groups to improve their music rhythm skills through team cooperation. Some students may play innovative thinking in practice and use the skills of music rhythm to improvisation or adapt.

3. Sharing and communication: Students will share and communicate with other students and teachers to share their experiences, feelings and gains in practical exercises.

4. Self-assessment and improvement: Students will self-evaluate the performance and effectiveness of the practice exercises based on the feedback of teachers and other students, and take measures to improve it. **Expand and Application** Some students may apply their musical rhythm skills and physical training methods to other areas, such as stage performance, and dance creation.

Step 4 Summary

1. Knowledge integration and sharing: Under the guidance of teachers, students will review and sort out the musical rhythm skills and physical training methods they have learned in the whole training course to form a systematic knowledge system, and share their experience, experience and harvest with other students, so as to learn and communicate with each other.

2. Interactive communication and mutual evaluation: Students will evaluate each other, evaluate and give feedback on each other's learning effect, and accept teachers' evaluation and guidance on their learning situation, so as to better master skills and improve learning efficiency. They will also share their study plans and goals with other students and encourage and support each other to encourage others to make progress as well.

3. Future Planning and Reflection Summary: Students will plan their future learning goals and action plans based on the feedback from teachers and other students, as well as their own learning experiences. At the same time, they will also reflect and summarize, thinking about their gains and deficiencies in the learning process, as well as the need to be improved, so as to better improve their learning methods and strategies.

The course consists of Module 3: Musical instrument training(4 hours)

Musical instrument training is a very critical part of the Orff music teaching method to improve the sense of music rhythm training. Through simple knocking and playing musical instrument training, they cultivate students' musical skills and creativity, so that they can better understand and feel different music elements, such as rhythm, melody, harmony, etc. In the process of training, students can perceive different rhythms, so that they can better understand the characteristics

and expression of various beats, and establish a good rhythm perception ability. At the same time, students can better master rhythm performance skills, such as strength, speed, pause, changes, etc. These techniques are also very important in music performances, allowing students to better master the various characteristics and skills of rhythm performance. Through games and exercises, students can gradually feel the rhythm of music and gradually grasp the correct sense of rhythm in actual performance.

Step 1 Introduction

1. Active participation and interaction: Students will actively participate in game activities to understand and master the musical rhythm skills through personal participation and experience. At the same time, they will communicate and interact with other students and teachers to share their feelings, ideas and experiences, so as to enhance the interactivity and fun of learning.

2. Skill practice and innovative thinking: Students will use game activities to practice their musical instrument playing skills, such as playing Musical Instruments, singing, dancing, etc. Some students may exert their innovative thinking and make improvisation or adapt their musical rhythm skills to enhance their innovative ability and music creation skills.

3. Group cooperation and personality presentation: Students may play games in groups to improve their musical rhythm skills through teamwork, but also to promote their group cooperation ability and team spirit. Some students may show their personality and characteristics in the game activities, such as performing a dance, playing a tune of their own, etc., in order to better conduct instrument performance training, and enhance their personality and confidence.

Step 2 Lecture

1. Intensive listening and active notes: Students will listen attentively to the teacher's explanation, understand the basic principles and methods of the instrument playing, and how to use the instrument playing to express the rhythm of the music. At the same time, they will also actively record the content of the teacher's explanation, so as to review and refer to it in the subsequent exercises and applications.

2. Thinking, understanding and interaction and communication: Students will think about and understand what the teacher says, and try to connect their theoretical knowledge with their existing knowledge and experience. They will also actively communicate and interact with other students and teachers to share each other's feelings, ideas and experiences to further understand and master the instrument playing skills.

3. Questions and answers: Students will actively ask questions and answer questions raised by teachers and other students in order to further understand and master the instrument playing skills.

4. Personalization, Innovation and Introspecting Summary: Some students may play a personalization and innovation in musical instrument playing according to their interests, advantages and creativity, such as playing their own tunes, improvisation, etc. At the same time, the students will also reflect on their performance and gains in the musical instrument playing, as well as the insights and lessons learned in the training, so as to better apply the theoretical knowledge in the subsequent learning.

Step 3 Practical exercises

1. Practice and mastery: Under the guidance of teachers, students will actively participate in practical practice, and strive to master the skills of musical rhythm and musical instrument playing methods. They will find their deficiencies in the practice and try to improve and improve.

2. Group cooperation and innovation: Students will conduct practical practice in groups to improve their musical rhythm skills through team work. At the same time, some students may play an innovative thinking in the practice practice, and use the musical rhythm skills to improvisation or adapt, to further enhance their innovative ability and music creation skills.

3. Sharing and communication: Students will share and communicate with other students and teachers to share their experiences, feelings and gains in practical exercises. This communication and sharing can help them learn from and improve from each other, while also enhancing their social skills and sense of cooperation.

4. Self-assessment and improvement: Students will self-evaluate the performance and effectiveness of the practice exercises based on the feedback of teachers and other students, and take measures to improve it. This self-assessment and improvement can help students to better understand their own shortcomings, and take effective measures to improve them.

Step 4 Summary

1. Knowledge integration and sharing: Under the guidance of teachers, students will review and sort out the musical rhythm skills and musical instrument playing methods they learned in the whole training course, form a systematic knowledge system, and share their experience, experience and harvest with other students, so as to learn from and communicate with each other.

2. Interactive communication and mutual evaluation: Students will evaluate each other, evaluate and give feedback on each other's learning effect, and accept teachers' evaluation and guidance on their learning situation, so as to better master skills and improve learning efficiency. They will also share their learning plans and goals with other students and encourage and support each other to encourage others to make progress as well.

3. Future Planning and Reflection Summary: Students will plan their future learning goals and action plans based on the feedback from teachers and other students, as well as their own learning experiences. At the same time, they will also reflect and summarize, thinking about their gains and deficiencies in the learning process, as well as the need to be improved, so as to better improve their learning methods and strategies.

4. Teacher comments and encouragement and support: Students will receive teachers' evaluation and guidance on their learning situation, including their learning attitude, effort and skill mastery. Also, students will encourage and support each other and share their study plans and goals to encourage others to make progress as well. Teachers will also provide positive feedback and guidance to help students better understand and master musical rhythm skills and instrument playing methods.

Part 2: Result of compare students' musical rhythm skill before and after training course based on Orff music teaching theory

In this part, in order to test the teaching effect of Orff music teaching theory, in training courses, the researcher tested and analyzed the musical rhythm skill, including the theoretical knowledge, rhythm consciousness, practical ability and musical rhythm skill on 30 students in first-year of music education major in Yunnan Communication Vocational and Technical College before and after the students participated in the 12 hours training course. The teaching effect of training course is analyzed as follows.

1. In this research, 30 first-year students majoring in music education of Yunnan Communication Vocational and Technical College were selected as experimental subjects, including 25 female students (83.33%) and 5 male students (16.67%).

2. The researcher analyzed the students' musical rhythm before and after class based on Orff music teaching theory. The evaluation criteria for musical rhythm skill consist of 10 evaluation items. Each evaluation item is 1-3 points, 30 points in total. And the results are shown in Table 4.1 below.

Table 4.1 Scores of musical rhythm skill before and after training course based on Orff music teaching theory

Number of students	Before class score (Pre-test)	After class score (Post-test)	Differences between scores (D)
1	14	24	10
2	11	19	8
3	17	25	8
4	11	23	12
5	20	27	7
6	17	26	9
7	14	23	9
8	15	24	9
9	12	20	8
10	11	22	11

Table 4.1 Scores of musical rhythm skill before and after training course based on Orff music teaching theory (continue)

Number of students	Before class score (Pre-test)	After class score (Post-test)	Differences between scores (D)
11	18	29	11
12	16	25	9
13	12	21	9
14	14	26	12
15	12	20	8
16	11	18	7
17	20	29	9
18	18	29	11
19	10	21	11
20	12	21	9
21	18	27	9
22	13	21	8
23	16	26	10
24	11	23	12
25	18	27	9
26	14	25	11
27	18	28	10
28	14	25	11
29	11	18	7
30	16	26	10
Sum(X)	434	718	284
Average score (\bar{X})	14.47	23.93	9.47
SD.	3.01	3.27	1.50

In table 4.1, by implementing of training course based on Orff music teaching theory, the scores of musical rhythm skill before and after class for first-year

students are 14.47 points on average before class, 23.93 points after class, and the difference in average scores is 9.47 points, indicating that the scores after class are higher than before class.

3. The researcher analyzed the data and used average , standard deviation, and t-test dependent samples to analyze the scores of students' musical rhythm skill before and after implementation of training course. The data analysis results are shown in Table 4.2.

Table 4.2 The comparison of students' musical rhythm skill before and after training course based on Orff music teaching theory

musical rhythm skill	n	full scores	\bar{x}	SD.	t	p
Pre-test	30	30	14.47	3.01	34.51**	.00
Post-test	30	30	23.93	3.27		

** Statistically significant at the level. 01 ($p < .01$)

It can be seen from Table 4.2 that the average score of musical rhythm skill of 30 students in first-grade of music education major in Yunnan Communication Vocational and Technical College after class is higher than the average score before class, indicating that students' musical rhythm skill after class is significantly higher than before class, with statistical significance at the level .01. By implementing the Orff music teaching theory on students, their musical rhythm skill after class is significantly higher than that before class. This is consistent with the research hypothesis is significantly higher than before class, with statistical significance at the level .01.

Chapter 5

Conclusion Discussion and Recommendations

The research "the development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students" aims to improve musical rhythm skill of college students by using the Orff music teaching theory, to study the learning behavior of first-year students in Yunnan Communication Vocational and Technical College, and compare the musical rhythm skill of students before and after class when using the Orff music teaching theory. The details are as follows.

1. Research relevant information about Orff music teaching theory, including the significance, importance, teaching steps, training plan and practical application of Orff music teaching theory. Since previous research has focused on the application and influence of Orff music pedagogy, in-depth research on the training course development and its effect of enhancing the sense of music rhythm is lacking. Therefore, this paper aims to fill this research gap

2. Research relevant information on musical rhythm skills, including the definition, importance, sound sense, musical expression, and creative ability

3. Create research instruments, including training course activity plan for teaching using the Orff music teaching theory, which includes four specific steps, step 1: introduction, step 2: lecture, step 3: practical exercises and step 4: summary. Research and develop musical rhythm skill evaluation scale, musical rhythm skill mainly includes the perception, memory and performance of the musical rhythm make the musical performance more accurate and expressive

4. Submit the research instruments to three experts to verify the effectiveness of the training course activity plan and musical rhythm skill evaluation scale, using the consistency index as the consideration criterion (Index of Item Objective Congruence: IOC). The reliability of the tool was checked by trying it out in Class 1, Grade 1 with similar conditions as the sample group.

5. After the development of the research tool was completed and passed expert inspection, training course activity plan using the Orff music teaching theory were adopted. In the first semester of the 2023 academic year, first-year university students were tested and data was collected using the Orff music teaching theory.

6. Using experimental data, analyze the average(\bar{X}), standard deviation (SD.) and t-test for dependent samples.

Conclusion

According to the research topic, the summary of the research on improving college students' musical rhythm skill through the Orff music teaching theory is as follows:

1. The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students, the course include: module 1: theoretical knowledge, module 2: physical training, module 3: musical instrument training, 12 hours in total. And measure students' musical rhythm skill before and after training course, it was found that students' musical rhythm skill has been improved.

2. Using training course Orff music teaching theory, the average score of first-year students' musical rhythm skills after class is higher than the average score before class, and the student's musical rhythm skills after class is significantly higher than before class, with statistical significance at the level .01.

Discussion

The aim of this study is to enable first-year college students to improve their musical rhythm skills through training course based on Orff music teaching theory. The results of this study can be discussed as follows:

1. To develop of training course based on Orff music teaching theory to improve the musical rhythm skill of undergraduate students, found out: given full play to the leading position of students in the whole learning activities, and has a significant effect in improving the sense of music rhythm. students generally reported that they had improved the rhythm of the music, and could better understand and feel the rhythm and emotion of the music. which is consistent with the research (Ye

Xiaochen ,2018), Through the research in theory and teaching practice, the researchers believe that use Orff music teaching concept to rhythm from the three aspects of language momentum, action momentum and musical instrument accompaniment The cultivation of sense, is in line with a more overall way to promote the development of children. In the guidance of Orff way by the perception of different beats in the beat, beat strength, the rhythm of the different notes, music ---rhythm, also has the other elements of music have more overall and perceptual cognition, also to a certain extent, improve the performance ability and the ability to cooperate.

This research conclusion is consistent with the research results of Zhang Qian (2018), according to the "Kindergarten Education Guidelines", the preschool education major has been clear Seek, in the preschool education professional music teaching, we must let the preschool teachers master the correct sound happy teaching knowledge and skills to enable teachers to correctly guide preschool children in the future employment experience music, increase the feeling of music, in the higher vocational preschool education professional music teaching, through the application of Orff rhythm teaching method, can fully stimulate students' interest in learning, so that students in music learning skilled palm grasp the rhythm of music, cultivate students' musical skills and artistic accomplishment, for students to become children teachers lay a good foundation. Additionally, Like Li Jumei (2022) this study found that focuses on improving students' ability to perceive and create music, and stimulating students' interest in learning. Driven by this goal, the teacher applies Orff music teaching method in the course training of music rhythm teaching, and strengthens students' experience of music rhythm through the training of body movements and musical instrument playing. This course is a learning course for the major of music education, which is characterized by the combination of Li Xinyu's practice. It requires students to transform the theoretical knowledge they have learned into practical exercises and creative ability. Through the application of the teaching methods in Orff music teaching theory, students have great interest in the training course, and through the training methods, students' sense of music rhythm has been greatly improved.

In addition, in Hu Meitong (2014) research states that Orff music teaching method is a very advanced music teaching system, applying it in primary school music rhythm teaching, plays a very important role, can effectively mobilize students' interest in music learning ability, improve students' perception of music, improve students' music creation ability. Therefore, primary school music teachers should strengthen the application of Orff music teaching method in primary school music rhythm teaching, give full play to the advantages of Orff music teaching method, and improve the quality of primary school music rhythm teaching

Finally, the results of this research (Hui Chaoying , 2021) is using diversified Orff teaching methods to teach and ignite students' learning enthusiasm and creativity. which effectively combined the Orff education system with music, language, movement and Musical Instruments, promoted the quality of music classroom teaching, and cultivated students' creativity, musical perception and comprehensive music literacy. By studying and learning the basic theoretical knowledge of Orff teaching method and combining the importance of rhythm learning, this paper explores the teaching method of Orff teaching method in rhythm learning in practice, and designs and practices a wealth of teaching examples through the use of training means such as bluff, games and musical instruments, so as to achieve the purpose of rhythm teaching in music training courses

2. The comparison of students' musical rhythm skill before and after the implementation of training course based on Orff music teaching theory, found out: It can guide students to learn independently in a planned manner. they strengthen the cultivation of students' self-directed learning and promote effective learning. The research results show that after implementing the Orff music teaching theory, the average score of students' musical rhythm skill is higher than before implementation, and the difference is statistically significant at the level .01, the research result is consistent with the research hypothesis, indicating that the Orff music teaching theory can promote the improvement of students' musical rhythm skill.

The conclusions of this study are consistent with those of Wang Yipin (2020). Wang Yipin conducted a survey on the current teaching situation in universities and found that In the music teaching of colleges and universities in my

country, the implementation of Orff teaching can enable students to learn complex teaching content as soon as possible when learning music. Students can arrange some simple rhythm games in the early stage of learning, so that students can easily accept it. Familiar with the rhythm problem, the teacher can do some comprehensive exercises, practice different rhythms, and also add some simple performance movements. With the deepening of this part, you can also add some musical instruments. Through this step-by-step process, students can easily master such complex learning content, which is also conducive to students' understanding of music theory, and at the same time increases students' interest in learning.

Furthermore, Wang Yixuan (2022) states that according to the statistical analysis of the experimental data, the same year was found in the test of large, middle and small classes there was no significant difference in the level of rhythm between the two parallel classes. In the experimental class of Orff, after the music education experiment, children of all ages were tested, and the results showed the value, speed, there are significant differences between strength and strength and the pretest results, which shows that Orff music education is helpful to children the cultivation of sense of rhythm and the level of children's sense of rhythm. On the other hand, Sun Yuting (2019) claimed that using Orff momentum teaching method for children's dance teaching rhythm, combined with language, movement, playing, using the twist, clapping, legs, stamping, momentum action such as the combination of different rhythm, the two experiment class research and compare the results, found the students in the processing of music rhythm, understanding of the dance on the differences: experimental class students in the response to the music, dance movements and music rhythm fusion and interest in dance, learning attitude has a very obvious improvement.

Moreover, Wang Yiqin (2020) claimed that adopts the way of combining theory with practice, explore the Orff teaching method in junior middle school music classroom rhythm teaching practice application, system expounds the Orff music teaching method applied to the junior high school music classroom role and significance, combined with the rhythm of Zhengzhou university affiliated high school teaching practice investigation and analysis, think Orff teaching method in junior high school

music classroom teaching will play an important role. Through reasonable and effective use of action, language, musical instruments and other variety of Orff teaching methods, make the students in the premise of interested in music classroom practice, efficient learning music knowledge, arouse the desire to explore and innovation, cultivate students' music rhythm and keen music sensibility, make it get rich emotional experience and can performance, innovative music rhythm

Accordingly, this result is in accordance with the opinion of Cao Yeyan (2017), which states Orff music teaching method is to respect and cultivate the musical potential of every student, so that they can learn and explore music in personal experience. In the training course, students are encouraged to express and create freely, which not only improves their musical skills, but also develops their innovative thinking and teamwork skills. In the training course, students not only learn music knowledge, but also express their feelings and thoughts through performance and creation, so as to cultivate their aesthetic ability and emotional expression ability.

Recommendations

1. Recommendations for the application of research results

1.1 Orff music teaching theory has a higher standard for teachers' teaching, which can be considered as a combination of opportunities and challenges. Teachers need to have solid music knowledge and teaching skills to be able to effectively teach the relevant knowledge and skills of music rhythm. In the training course, teachers should take students' needs and interests as the starting point, and flexibly use different teaching methods and means to stimulate students' enthusiasm and initiative in learning.

1.2 During the implementation of the training course of this study, some existing problems were found. First, due to the time limit of the training course, the course content is relatively compact, and students may feel more stressful. Secondly, in some implementation cases, although the training course can improve students' sense of music rhythm, students may still have some difficulties in practical operation. In the process of training, teachers should study deeply and constantly

improve the teaching mode, and apply the Orff music teaching theory to their own training courses more flexibly.

2. Recommendations for the future research

2.1 Due to the limitations of this study, the study sample was mainly concentrated on college students in one school and may not be representative of the nationwide group of college students. Due to time and resource constraints, we could only select limited cases for analysis, with some deficiencies in coverage and representativeness. Therefore, it is recommended to add more samples in future studies to improve study representativeness and reliability.

2.2 Practical research shows that the teaching of rhythm is very necessary for junior middle school music classroom, and improving students' sense of music rhythm can play a good role in creating an efficient classroom. Future research can further deepen the implementation effect of the training course, the improvement of the teaching mode, and the correlation research of Orff music teaching theory, so as to promote the development of music education.

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Appendix

Appendix A

List of Specialists and Letters of Specialists Invitation for IOC Verification

Appendix A

List of Specialists and Letters of Specialists Invitation for IOC Verification

Name of Experts	Position/Office
1. Saifon Songsiengchai	Assistant Professor Doctor Faculty of Humanities and Social Sciences Bansomdejchaopraya Rajabhat University
2. Phatravee Tienchaianan	Assistant Professor Doctor College of Music Bansomdejchaopraya Rajabhat University
3. Wang Xuelian	Professor College of Education Yunnan Technology and Business University



Ref.No. MHESI 0643.14/850

Bansomdejchaopraya
Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

11 August 2023

RE: Invitation to validate research instrument

Dear Assistant Professor Dr.Saifon Songsiengchai

Miss Wang Liping is a graduate student in Master of Education Program in Curriculum and Instruction of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "The Development of Training Course Based on Orff Music Teaching Theory to Improve Musical Rhythm Skill of Undergraduate Students"

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

We respectfully request your assistance in validating a research instrument that is attached to this message. We would be grateful for any help you can provide in this matter. We would like to express our sincere appreciation for your time and expertise. If you have any questions or concerns, please do not hesitate to contact Miss Wang Liping at 472889003@qq.com

Thank you for considering our request.

Sincerely,

(Dr.Nainapas Injounjirakit)
Vice Dean, For Dean of the Graduate School

Bansomdejchaopraya Rajabhat University
Tel.+662-473-7000 ext. 1814
www.bsru.ac.th



Ref.No. MHESI 0643.14/851

Bansomdejchaopraya
Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

11 August 2023

RE: Invitation to validate research instrument

Dear Assistant Professor Dr. Phatravee Tienchaianan

Miss Wang Liping is a graduate student in Master of Education Program in Curriculum and Instruction of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "The Development of Training Course Based on Orff Music Teaching Theory to Improve Musical Rhythm Skill of Undergraduate Students"

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Thank you for considering our request.

Sincerely,

(Dr. Nainapas Injoungrakit)
Vice Dean, For Dean of the Graduate School

Bansomdejchaopraya Rajabhat University
Tel.+662-473-7000 ext. 1814
www.bsru.ac.th



Ref.No. MHESI 0643.14/852

Bansomdejchaopraya
Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

11 August 2023

RE: Invitation to validate research instrument

Dear Professor Wang Xuelian

Miss Wang Liping is a graduate student in Master of Education Program in Curriculum and Instruction of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "The Development of Training Course Based on Orff Music Teaching Theory to Improve Musical Rhythm Skill of Undergraduate Students"

The thesis adversity committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research instrument.

We respectfully request your assistance in validating a research instrument that is attached to this message. We would be grateful for any help you can provide in this matter. We would like to express our sincere appreciation for your time and expertise. If you have any questions or concerns, please do not hesitate to contact Miss Wang Liping at 472889003@qq.com

Thank you for considering our request.

Sincerely,

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Vice Dean, For Dean of the Graduate School

Bansomdejchaopraya Rajabhat University
Tel.+662-473-7000 ext. 1814
www.bsru.ac.th

Appendix B
Research Instruments

Training course activity plan based on Orff music teaching theory

Content:

Module1: Theoretical knowledge 4 hours

Time : knowledge : practice 75 : 25

knowledge 3 hours

Practice 1 hours

Explanation

The Orff music teaching method is a German music education method named after the Carl Orff. The method emphasizes the basic elements of music education-sound, rhythm, melody and harmony, and transforms the learning process into an interactive experience with instrument playing and physical performance. In the training of theoretical knowledge, teachers will start with the most basic rhythm units, such as beat, beat and rhythm type. As students' comprehension improves, teachers can gradually guide students to explore complex rhythm forms, as well as various drum and beat skills. At the same time, teachers will encourage students to perform creative performances and improvisation to enhance their music perception and performance.

Objective of Learning

1. Students can understand the basic principles, content, characteristics and significance of Orff music teaching method
2. Students can grasp the concept of music rhythm, master the basic elements of music rhythm, and use the Orff music teaching method to improve the skills of music rhythm
3. Students can improve their sense of music rhythm by participating in music teaching activities

Research scope

Time : knowledge : practice

Module 1: Theoretical knowledge 1-3

1.1 Understand the basic principles, characteristics and significance of Orff music teaching method

1.2 Master the concepts and basic elements of musical rhythm, and use the skills of using Orff music teaching method to improve the sense of musical rhythm

1.3 Improve your sense of music rhythm by participating in music teaching activities

Training course activity

The research is The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students ,Orff's music teaching theory have 4 steps as follows: 1) Introduction, 2) Lecture, 3) Practical exercises, 4) Summary.

Step 1 Introduction

At this stage, students are mainly required to understand the basic knowledge of the Orff music teaching method, and to master the concept of music rhythm through the knowledge points they have learned, and master the basic music rhythm elements. In this teaching step, the students can feel the changes in the rhythm through the way of gaming. During the teaching process, theoretical knowledge was explained, and excellent cases were displayed on the projector to stimulate the sensory experience.

1.1 The teacher introduces the definition, basic principles and content of Orff music teaching theory to students, and traces the origin of Orff music teaching theory.

1.2 Teachers show students the implementation cases of Orff music teaching theory to stimulate students' sensory experience.

1.3 Teachers let students feel the rhythm of different positions in the music through games.

1.4 Teachers let students understand what Orff music education is like, what kind of teaching activities and organizational forms there are through example analysis.

Step 2 Lecture

At this stage, teachers let students understand Orff music teaching theory in a deeper level through the form of lectures. In the previous teaching process, students learned the basic knowledge of Orff music teaching theory. A series of questions gave their own judgments, and the students expressed their views and opinions on some excellent cases, and explained the basic knowledge of the knowledge they have learned in teaching, which can be applied to their own teaching. In the lecture stage, students' understanding of Orff music teaching theory and the concept of rhythm is based on the knowledge they have learned before. Teachers give appropriate evaluation and analysis through students' speeches, and students can also communicate what they have discovered to integrate them.

2.1 Students summarize what they have learned in the basic study, discuss with the teacher and ask questions.

2.2 The teacher presents the slides on the blackboard, explains the meaning, sign and function of each element, and makes an audio demonstration. At the same time, the teacher provided a score for practicing finding rhythm changes and playing strong and weak symbols in a steady state, and asked the students to try to play the rhythmic elements in it. When the students are studying, the teacher encourages them to try more, and each rhythmic element has to be experienced and played repeatedly.

2.3 What troubles students will encounter during the learning process, and what mistakes these troubles will cause during the students' practice, the teacher can answer and demonstrate according to the questions and questions raised by the students.

2.4 At the end of the lecture period, the teacher summarizes the questions raised by the students and the concepts learned, and continues to follow up and optimize.

Step 3 Practical exercises

Through the above two stages of study, students have a certain understanding of basic knowledge. At this stage, students can practice according to the basic knowledge they have learned and excellent cases. Teachers show music works with a clear sense of rhythm, attract students' attention and let them feel the rhythmic elements of music. Students perform and share music, apply the rhythm they have learned to actual music performance, and share their results with others. Through performance and sharing, students can demonstrate their musical talents and further enhance their sense of musical rhythm.

3.1 The teacher plays a simple piece of music, and asks the students to listen to and identify the beats and beats in the piece. At the same time, the teacher guides the students to think about the changes in the strength and weakness of the piece.

3.2 The teacher asked the students to use the Orff instrument to play the piece according to the rhythm, and pay attention to the strong and weak performance. The teacher can guide the students to play one by one, and pay attention to correct the students' mistakes.

3.3 The teacher requires the students to group freely, use the knowledge they have learned to design a simple melody, and perform it. The teacher can guide the students to play one by one, and give encouragement and praise.

3.4 The teacher asks the students to apply the sense of rhythm they have learned to the actual music performance, and share their results.

Step 4 Summary

After the students have finished creating their work, they should first explain their own creative ideas and process, as well as the problems encountered in the process of creation, and then conduct self-evaluation, mutual evaluation among students and teacher's evaluation. Second, students discuss where they have improved in their abilities in the course, and where they need to improve. Finally,

the teacher made a comparative analysis of the students' previous design work and summarized the deficiencies.

4.1 Students first show their works to other students and teachers, and explain the creative ideas and methods, as well as the problems in the creative process.

4.2 Students self-evaluate their creative works, students can evaluate each other, and then the teacher gives corresponding scores after the comments

4.3 Teachers compare the changes in students' music rhythm ability before and after applying Orff teaching theory, and analyze the advantages and disadvantages in the learning process and what is worth learning.

4.4 Finally, the teacher summarizes and analyzes what has been learned throughout the course, and counts the students' excellence.

Instructional Media

1. Online teaching video
2. Internet media
3. Excellent public class

Evaluation method

1. Pre-test, Post-test for training course activity plan1
2. Observe the behavior of students

Assessment tool

1. Test questions for training course activity plan1
2. Observe behavior of students form

Pre-test ,Post-test Questions for training course activity plan 1

Single-choice (3 points for each question, 30 points in total)

1. The founder of the Orff music teaching method is: (A)
 - A. Karl Orff
 - B. John Cage
 - C. Steve Reich
2. The core concept of Orff music teaching method is: (B)
 - A. Let children grow in freedom
 - B. Based on a sense of rhythm, comprehensive education is conducted through music and dance
 - C. Cultivate children's music performance ability
3. The "Orff instrument" in the Orff music teaching method is a type: (B)
 - A. Electronic instrument
 - B. Wooden instrument
 - C. Metal instrument
4. The "circulating game" in the Orff music teaching method is a type:(C)
 - A. Music form
 - B. Dance form
 - C. Cooperative game form
5. In the Orff music teaching method, which rhythm is the most basic?(C)
 - A. Tune rhythm
 - B. The meaning of the chapter is moving
 - C. Rhythm
6. The "rhythmic gymnastics" in the Orff music teaching method is a type: (B)
 - A. Music form
 - B. Dance form
 - C. Cooperative game form
7. The "ensemble" in the Orff music teaching method refers to: (A)
 - A. Collaboration between students
 - B. Interactive performance of students and teachers
 - C. Performance in concert or performance

8. Mr. Orff believes that music is only a means of education, and () is the ultimate purpose of music education? (D)

- A. Musical instrument performance
- B. Singing level
- C. Music skills practice
- D. Cultivate people

9. What are the courses of Orff music teaching? (A)

- A. Early, middle, and late stages
- B. Primary, intermediate, advanced
- C. Electronics, wooden, metal

10. "Music Inquiry" in Orff Music Teaching Law is a type: (A)

- A. Analyze and study music
- B. Perform and perform music
- C. Appreciate and evaluate music

Student behavior observation form for training course activity plan1

observation item	Student behavior	Remarks
1. basic knowledge	Understand the basic rhythm and beat concepts	
	Ability to recognize different notes and rest stops	
2. Rhythm practice	Be able to follow simple rhythm patterns	
	Ability to imitate different drumbeat patterns	
3. cooperative ability	Be able to play the synergistic rhythm mode together with my classmates	
	Ability to maintain a steady rhythm in group music playing	
4. Music expressive force	Ability to express emotion and dynamic changes during the performance	
	Be able to play music confidently	
5. Classroom participation	High attendance	
	Actively answer questions and raise opinions	

Assessment form for Validity of Training course activity plan1

Research Title :The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students.

Research Objectives :

- 1.To develop of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students.
- 2.To compare students' musical rhythm skill before and after training course based on Orff music teaching theory

Assessor:

Position:.....

Workplace:.....

Directions: Please assess the congruence between components of training course activity plans and applications of appropriateness and instructional model by putting \checkmark in the box according to following criteria.

Rating is +1. There is an opinion that “Corresponds to definition.”

Rating is 0. There is an opinion that “Not sure it corresponds to definition.”

Rating is -1. There is an opinion that “Inconsistent with definition.”

No.	Items	Assessment Results			Remarks
		+1	0	-1	
1	Content				
2	Explanation				
3	Objective of Learning				

4	Training course Activity
5	Instructional Media
6	Evaluation method
7	Assessment tool

Suggestions:

.....

.....

Sign.....Assessor
(.....)

Training course activity plan based on Orff music teaching theory

Module 2: Physical training 4 Hours

Time : knowledge:practice 25 : 75

knowledge 1 hours

Practice 3 hours

Explanation

Physical training is a very important link in the Orff music teaching method. It is one of the important means to cultivate students' music rhythm and masterpit. This training course aims to introduce the theoretical and practical techniques of Orff music teaching methods to help students deeply understand the importance and practical application of Orff music teaching method. Through this training, students will learn how to improve the sense of music rhythm and grasp of students through the form of limb training, so as to better practice the organic combination of music, limb activities, language and visual elements in the Orff music teaching method, so that students can cultivate comprehensive physical and mental quality while receiving music education.

Objective of Learning

1. Students can understand the importance and practical application of physical training;
2. Students can master how to improve students' sense of music rhythm through physical training, and the relationship between physical training and music rhythm;
3. Students can improve their sense of music rhythm through the practice and sharing of physical training

Training course activity

The research is The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students ,Orff music teaching theory have 4 steps as follows: 1) Introduction, 2) Lecture, 3) Practical exercises, 4) Summary

Research scope

Time : knowledge : practice

Module 2 physical training 1-3

1.1.The principle and practical skills of physical training to enhance the rhythm of music

1.2. How to improve students' sense of music rhythm through physical training and training

1.3. Practice and sharing of physical training

Training course activity

The research is The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students ,Orff music teaching theory have 4 steps as follows: 1) Introduction 2) Lecture 3) Practical exercises 4) Summary

Step 1 Introduction

At this stage, students are mainly required to understand the basic principles of physical training, and through the knowledge points learned, master the concept of physical training to improve the sense of music rhythm, and master the basic music rhythm elements. In this teaching step, let the students feel the rhythm changes in the physical training through the introduction of the game. During the teaching process, theoretical knowledge is explained, excellent cases are displayed on the projector, and Stimulate students' sensory experience

1.1 The teacher introduces to the students the basic principles and practical skills of physical training to improve the sense of music rhythm

1.2 Teachers show students the implementation cases of physical training to stimulate students' sensory experience.

1.3 The teacher lets the students feel the rhythm of different positions in the body training music through games.

1.4 Teachers let students understand what physical training is like, what kind of teaching activities and organizational forms there are through example analysis.

Step 2 Lecture

At this stage, the teacher let the students understand the basic principles and practical skills of physical training to improve the sense of music rhythm in a deeper level through the form of lectures. A series of questions about golf music teaching theory gave their own judgments, and the students expressed their views and opinions on some excellent cases, and explained the basic knowledge learned in teaching, which can be applied to their own teaching . In the lecture stage, students' understanding of physical training to improve music rhythm is based on the knowledge they have learned before. Teachers give appropriate evaluation and analysis through students' speeches, and students can also communicate what they have discovered to integrate them.

2.1 Students summarize what they have learned in the basic study, discuss with the teacher and ask questions.

2.2 The teacher presents the slides on the blackboard, explains the meaning, sign and function of each element, and makes an audio demonstration. At the same time, the teacher provided a score for practicing finding rhythm changes and playing strong and weak symbols in a steady state, and asked the students to try to play the rhythmic elements in it. When the students are studying, the teacher encourages them to try more, and each rhythmic element has to be experienced and played repeatedly.

2.3 What troubles students will encounter during the learning process, and what mistakes these troubles will cause during the students' practice, the teacher can answer and demonstrate according to the questions and questions raised by the students.

2.4 At the end of the lecture period, the teacher summarizes the questions raised by the students and the concepts learned, and continues to follow up and optimize.

Step 3 Practical exercises

Through the above two stages of study, students have a certain understanding of the basic principles and practical skills of physical training. At this stage, students can carry out practical exercises based on the basic knowledge and excellent cases they have learned. Music works with a clear sense of rhythm attract students' attention and let them feel the rhythmic elements of music. Students perform and share music, apply the rhythms they have learned to practical physical training, and share their results with others. Through performance and sharing, students can demonstrate their musical talents and further enhance their sense of musical rhythm.

3.1 The teacher plays a music rhythm video, and asks the students to practice following the rhythm of the video. At the same time, the teacher guides the students to think about the rhythm changes of the body movements in the video.

3.2 The teacher asks the students to practice physical training in groups and personally experience the process of physical training in Orff music teaching method. 3.3 The teacher asks the students to group freely, use the knowledge they have learned to design a set of simple physical training movements, and perform on-site demonstrations. Teachers can guide students to demonstrate one by one, and give encouragement and praise.

3.4 The teacher asks the students to apply the rhythm sense they have learned to the actual music rhythm, and share their results.

Step 4 Summary

After the students have finished creating their work, they should first explain their own creative ideas and process, as well as the problems encountered in the process of creation, and then conduct self-evaluation, mutual evaluation among students and teacher's evaluation. Second, students discuss where they have improved in their abilities in the course, and where they need to improve. Finally,

the teacher made a comparative analysis of the students' previous design work and summarized the deficiencies.

4.1 Students first show their works to other students and teachers, and explain the creative ideas and methods, as well as the problems in the creative process.

4.2 Students self-evaluate their creative works, students can evaluate each other, and then the teacher gives corresponding scores after the comments

4.3 The teacher compares the changes in the students' music rhythm ability before and after the application of physical training, and analyzes the advantages and disadvantages in the learning process and what is worth learning.

4.4 Finally, the teacher summarizes and analyzes what has been learned throughout the course, and counts the students' excellence.

Instructional Media

1. Online teaching video
2. Internet media
3. Excellent public class

Evaluation method

1. Pre-test, Post-test for training course activity plan 2
2. Observe the behavior of students

Assessment tool

1. Test questions for training course activity plan 2
2. Observe behavior of students form

Pre-test ,Post-test Questions for training course activity plan 2

Single-choice (3 points for each question, 30 points in total)

1. Which of the following is one of the key aspects emphasized in Orff music teaching theory?(D)

- A. Musical instrument playing techniques
- B. Theoretical knowledge of music
- C. Creativity and improvisation
- D. Rhythm awareness

2. The main goal of physical training in Orff music teaching approach is to? (B)

- A. Enhance students' motor skills
- B. Improve students' sense of rhythm
- C. Stimulate students' creativity
- D. Assist students' language development

3. Characteristics of Orff music teaching theory include which of the following? (A)

- A. Learner-centeredness, experience-based, active participation, and creativity
- B. Visual aids, audio recordings, live performances, and group activities
- C. Structuredness, standardization, and systematization
- D. Dynamics, improvisation, and creativity

4. The importance of physical training in Orff music teaching approach is to? (D)

- A. Facilitate students' better understanding of music structure and form
- B. Enable students to perform better on stage
- C. Stimulate students' interest and enthusiasm for music
- D. Enhance students' sense of rhythm and coordination

5. In Orff music teaching approach, how do teachers promote physical training? (D)

- A. By creating a relaxed and enjoyable learning atmosphere
- B. By providing personalized guidance to different students
- C. By encouraging students to express their creativity and improvise
- D. All of the above

6. Which of the following is NOT a characteristic of physical training in Orff music teaching theory? (D)

- A. Combining music rhythm with dance movements
- B. Personalized teaching that caters to individual needs
- C. Using games and contests as training methods
- D. Using traditional instruments for training

7. The main purpose of physical training in Orff music teaching approach is to?(A)

- A. Enhance students' performance skills and stage presence
- B. Improve students' physical fitness and overall wellness
- C. Stimulate students' creativity and improvisation abilities
- D. None of the above

8. Components of physical training in Orff music teaching theory include which of the following? (D)

- A. Designing and implementing games and contests
- B. Performing solos and ensemble pieces on Orff-style instruments
- C. Expressing the rhythm and emotion of music through bodily movements
- D. All of the above

9. Which of the following is NOT a characteristic of physical training in Orff music teaching theory? (C)

- A. Personalized teaching that caters to individual needs
- B. Using games and contests as training methods
- C. Using self-created instruments for training
- D. None of the above

10. Physical training in Orff music teaching approach brings about which of the following benefits to students? (D)

- A. Enhancing performance skills and stage presence
- B. Improving physical fitness and overall wellness
- C. Stimulating creativity and improvisation abilities
- D. All of the above

Student behavior observation form for training course activity plan2

observation item	Student behavior	Remarks
1. basic knowledge	Understand the basic rhythm and beat concepts	
	Ability to recognize different notes and rest stops	
2. Rhythm practice	Be able to follow simple rhythm patterns	
	Ability to imitate different drumbeat patterns	
3. Cooperative ability	Be able to play the synergistic rhythm mode together with my classmates	
	Ability to maintain a steady rhythm in group music playing	
4. Music expressive force	Ability to express emotion and dynamic changes during the performance	
	Be able to play music confidently	
5. Classroom participation	High attendance	
	Actively answer questions and raise opinions	

Assessment form for Validity of training course activity plan 2

Research Title :The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students.

Research Objectives :

1. To develop of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students.
2. To compare students' musical rhythm skill before and after training course based on Orff music teaching theory

Assessor:

Position:.....

Workplace:.....

Directions: Please assess the congruence between components of training course activity plans and applications of appropriateness and instructional model by putting \checkmark in the box according to following criteria.

Rating is +1. There is an opinion that “Corresponds to definition.”

Rating is 0. There is an opinion that “Not sure it corresponds to definition.”

Rating is -1. There is an opinion that “Inconsistent with definition.”

No.	Items	Assessment Results			Remarks
		+1	0	-1	
1	Content				
2	Explanation				
3	Objective of Learning				

4	Training course Activity
5	Instructional Media
6	Evaluation method
7	Assessment tool

Suggestions:

.....
.....

Sign.....Assessor
(.....)

Training course activity plan based on Orff music teaching theory

Module 3: Musical instrument training 4 Hours

Time : knowledge:practice	25	: 75	
	knowledge		1 hours
	Practice		3 hours

Explanation

Musical instrument training is a very critical part of the Orff music teaching method to improve the sense of music rhythm training. Through simple knocking and playing musical instrument training, they cultivate students' musical skills and creativity, so that they can better understand and feel different music elements, such as rhythm, melody, harmony, etc. In the process of training, students can perceive different rhythms, so that they can better understand the characteristics and expression of various beats, and establish a good rhythm perception ability. At the same time, students can better master rhythm performance skills, such as strength, speed, pause, changes, etc. These techniques are also very important in music performances, allowing students to better master the various characteristics and skills of rhythm performance. Through games and exercises, students can gradually feel the rhythm of music and gradually grasp the correct sense of rhythm in actual performance..

Objective of Learning

1. Students can master how to apply the Orff music teaching method to improve the sense of music rhythm and instrument playing skills
2. Students can master basic musical instrument performance skills and music theory knowledge
3. Improve students' musical instrument performance skills and musical expression through practical performance

Training course activity

The research is the development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students ,Orff music teaching theory have 4 steps as follows: 1) Introduction 2) Lecture 3) Practical exercises 4) Summary

Research scope

Time : knowledge : practice

Module 2 musical instrument training 1-3

1.1. Understand and feel the different musical elements, and master the basic skills and methods of musical instrument performance

1.2. Improve students' musical instrument playing skills and musical performance through practical performance

1.3. Through musical instrument performance training, students can express their emotions and creativity, and give full play to their imagination and creativity, so as to improve their musical expression ability, so that they can better understand and express the emotion and artistic conception of music.

Training course activity

The research is The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students ,Orff music teaching theory have 4 steps as follows: 1) Introduction 2) Lecture 3) Practical exercises 4) Summary

Step 1 Introduction

At this stage, students are mainly required to understand the basic skills and methods of musical instrument performance training, and through the knowledge points learned, master the concept of musical instrument performance training to improve the sense of music rhythm, and master the basic music rhythm elements. In this teaching step, students can feel the rhythm changes in musical instrument performance through the introduction of games. During the teaching process, theoretical knowledge is explained, excellent cases are displayed on the projector, and students' design behavior is stimulated by students' visual senses.

1.1 The teacher introduces to the students the basic skills and methods of musical instrument performance training to improve the sense of music rhythm

1.2 Teachers show students the implementation cases of musical instrument performance training to stimulate students' sensory experience.

1.3 The teacher allows the students to feel the rhythm of different positions in the music when the instrument is played through the game.

1.4 Teachers let students understand what kind of musical instrument performance training is like, what kind of teaching activities and organizational forms there are through example analysis.

Step 2 Lecture

At this stage, the teacher through the form of teaching students deeper understanding of instrument training improve the basic skills and methods of music rhythm, in the teaching process, students learn the basic knowledge of music teaching theory, a series of music teaching theory of orff to have their own judgment, the students have some excellent cases published their own views and opinions. In the teaching stage, students 'understanding of musical instrument training to improve the musical rhythm is based on the knowledge they have learned before. Teachers give appropriate evaluation and analysis through students' sharing, and students can also exchange the knowledge they have found to integrate them.

2.1 Students summarize what they have learned in their basic study, discuss with the teacher and ask questions.

2.2 The teacher will present the training video of musical instrument performance with multimedia, explain the meaning, logo and function of each element, and make a demonstration. At the same time, the teacher provided the music score to find the rhythm changes and play the strength symbols during the smooth practice, and asked the students to try to play the rhythm elements on the scene. When students study, the teacher encourages them to try more, and every rhythm element should be experienced and played repeatedly.

2.3 What problems will students encounter in the process of learning, and what mistakes will these questions lead to in the process of students' practice? Teachers can answer and demonstrate according to the questions raised by students.

2.4 At the end of the teaching stage, the teacher summarizes the questions raised by the students and the concepts learned, and constantly follows up and optimizes them.

Step 3 Practical exercises

Through the above two stages of learning, students on the basic skills and methods of musical instrument training have a certain understanding, at this stage, students can learn according to the basic knowledge and excellent case practice, teachers through the display with obvious rhythm of music works, attract the students' attention, let them feel the rhythm of the music elements. Students perform and share the music, apply the rhythm to the actual instrument performance training, and share their achievements with others. Through performance and sharing, students can show their musical talent and further enhance the sense of musical rhythm.

3.1 The teacher plays a music rhythm video, and asks the students to follow the rhythm and action training of the video. At the same time, the teacher instructs the students to think about the rhythm changes of the musical instrument playing in the video.

3.2 The teacher asks the students to conduct instrument performance training in groups, and experience the process of instrument performance training in Orff music teaching method

3.3 The teacher requires the students to group freely, design a set of simple musical instrument performance training movements with the knowledge learned, and make a live demonstration. The teacher can guide the students to demonstrate one by one, and give them encouragement and praise.

3.4 The teacher lets the students apply the sense of rhythm they have learned to the actual music rhythm and share their own results.

Step 4 Summary

After completing the creation of works, students should first explain their own creative ideas and creation process and the problems encountered in the creation process, and then conduct self-evaluation, mutual evaluation between students and teachers' evaluation. Secondly, students discussed what their abilities in

the course have improved and what needs to be improved. Finally, the teacher made a comparative analysis of the students' previous creation and summarized the shortcomings.

4.1 Students will first present their works to other students and teachers, and explain the creative ideas and methods, as well as the problems existing in the creative process.

4.2 Students will show their own created works, and then the teacher will give the corresponding score after commenting

4.3 Teachers compare the changes of students' musical rhythm ability before and after the training of applied musical instrument performance, and analyze the advantages and disadvantages in the learning process and the places worth learning.

4.4 Finally, the teacher summarizes and analyzes what the students have learned in the whole course, and evaluates the students' behavior in the whole course training.

Instructional Media

1. Online teaching video
2. Internet media
3. Excellent public class
4. African drum
5. cup

Evaluation method

1. Pre-test, Post-test for training course activity plan 3
2. Observe the behavior of students

Assessment tool

1. Test questions for training course activity plan 3
2. Observe behavior of students form

Pre-test, Post-test Questions for training course activity plan 3

Single-choice (3 points for each question, 30 points in total)

1. What is the main goal of the Orff music teaching theory? (B)
 - A. To teach students how to play musical instruments
 - B. To improve students' sense of musical rhythm
 - C. To help students understand the structure of music
 - D. To inspire students' creativity in music
2. What are the characteristics of the Orff music teaching theory? (A)
 - A. Learner-centeredness, experience-based, active participation and creativity
 - B. Game-based, teacher-directed, passive learning and standardization
 - C. Holistic, logical, step-by-step and quantifiable
 - D. Visual, auditory, kinesthetic and experiential
3. What are the advantages of using the Orff method to develop music education? (A)
 - A. It develops students' fine motor skills and cognitive abilities
 - B. It enhances students' aesthetic sensitivity and creativity
 - C. It cultivates students' collaborative and communication skills
 - D. All of the above
4. What are the core elements of the Orff method? (A)
 - A. Rhythm games, singing, dance and instrument playing
 - B. Visual aids, audio recordings, live performances and group work
 - C. Theory lectures, skill training, performance and feedback
 - D. Active listening, participation and creation
5. Why is it important to improve students' sense of musical rhythm? (A)
 - A. It helps students better understand music and appreciate its beauty
 - B. It facilitates students' learning and performance of music pieces
 - C. It cultivates students' artistic talent and creativity
 - D. It promotes students' cognitive and emotional development
6. What are the main contents of our training course on improving musical rhythm? (A)

- A. Introduction to the Orff music teaching theory
- B. Practice of rhythm games and instrument playing
- C. Training on performance skills and collaboration
- D. A and B

7. What are the advantages of our training course compared to traditional music education? (D)

- A. It emphasizes individual differences and self-expression
- B. It combines theory with practice and emphasizes experience-based learning
- C. It uses a variety of educational resources and technologies to enhance learning effectiveness
- D. All of the above

8. What are the main challenges in implementing the Orff method? (D)

- A. Lack of professional teachers and resources
- B. Students' differences in ability and interest
- C. Restrictions on training course design and evaluation methods
- D. All of the above

9. How should teachers implement the Orff method in the classroom effectively? (D)

- A. Provide individualized guidance and feedback to students
- B. Rotate teaching content and methods according to students' needs
- C. Emphasize quality rather than quantity in teaching and evaluation
- D. All of the above

10. What are the expected results after join in our training course?(D)

- A. Students have a deeper understanding of the Orff method and its application in music education
- B. Students have improved their ability to perform music pieces with better rhythm control and expression
- C. Students have developed their artistic talent and creativity through music education based on the Orff method
- D. All of the above

Student behavior observation form for training course activity plan 3

observation item	Student behavior	Remarks
1. basic knowledge	Understand the basic rhythm and beat concepts	
	Ability to recognize different notes and rest stops	
2. Rhythm practice	Be able to follow simple rhythm patterns	
	Ability to imitate different drumbeat patterns	
3. cooperative ability	Be able to play the synergistic rhythm mode together with my classmates	
	Ability to maintain a steady rhythm in group music playing	
4. Music expressive force	Ability to express emotion and dynamic changes during the performance	
	Be able to play music confidently	
5. Classroom participation	High attendance	
	Actively answer questions and raise opinions	

Assessment form for Validity of training course activity plan 3

Research Title :The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students.

Research Objectives :

1. The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students.
2. To compare students' musical rhythm skill before and after training course based on Orff music teaching theory

Assessor:

Position:.....

Workplace:.....

Directions: Please assess the congruence between components of training course activity plans and applications of appropriateness and instructional model by putting \checkmark in the box according to following criteria.

Rating is +1. There is an opinion that “Corresponds to definition.”

Rating is 0. There is an opinion that “Not sure it corresponds to definition.”

Rating is -1. There is an opinion that “Inconsistent with definition.”

No.	Items	Assessment Results			Remarks
		+1	0	-1	
1	Content				
2	Explanation				
3	Objective of Learning				
4	Training course activity				

5	Instructional Media
6	Evaluation method
7	Assessment tool

Suggestions:

.....
.....

Sign.....Assessor
(.....)

Musical rhythm skill measurement form

Evaluation Items	Score and criterion		
	3	2	1
1. Rhythm theory knowledge	Have a comprehensive understanding of rhythm theory and be able to apply it to actual music performance and creation	Have some understanding of rhythm theory, but still need to learn and consolidate	Little understanding of rhythm theory and lack of basic rhythm concepts
2. Basic rhythm recognition	Can accurately understand and recognize the basic rhythm	Able to understand and identify basic rhythms at a basic level, but sometimes deviates	Unable to accurately understand and identify the basic rhythm
3. Rhythm change understanding	Can accurately understand the rhythm changes in the music	Basically understand the rhythm changes in the music	Unable to accurately understand the rhythm changes in the music
4. Rhythm recognition	Can accurately identify different rhythmic types	Basically accurately identify different rhythm types, but sometimes make mistakes	Unable to accurately identify the different rhythmic patterns

Evaluation Items	Score and criterion		
	3	2	1
5. Rhythm playing skills	Can accurately play the basic beat and rhythm type	Play the basic beat and rhythm type almost accurately, but often deviate	Unable to accurately play the basic beat and rhythm type
6. Rhythm perception and mastery	Can accurately perceive and master the rhythm in the music	Basically accurate, but sometimes the deviation occurs	Unable to accurately perceive and grasp the rhythm in the music
7. Musical expression	Can express the emotion and characteristics of music through an accurate sense of rhythm	Can basically accurately express the emotion and characteristics of music through the sense of rhythm, but the expressiveness is not enough	Unable to express the emotion and characteristics of music through an accurate sense of rhythm
8. Cooperative playing ability	Ability to play in harmony with other players and maintain a sense of musical rhythm	Generally able to coordinate with other players and maintain a sense of musical rhythm, but sometimes makes mistakes	Unable to coordinate with other players or maintain the sense of rhythm of the music

Evaluation Items	Score and criterion		
	3	2	1
9. Music creation ability	Music creation can create diverse and creative rhythm patterns	It is possible to try some new rhythmic ideas when composing music, but more innovation is still needed.	In creating music, the rhythm conception is relatively simple, lack of innovation
10. Rhythm improvisation	The improvisation is steady and it is able to create new rhythm patterns smoothly	There is some rhythm control in improvisation, but there is still room for improvement.	The rhythm of the improvisation is chaotic and lacks stability

Score Range**Quality Level**

27-30

Strong

23-26

Relatively strong

18-22

General

14-17

Relatively weak

10-13

Weak

Assessment form for musical rhythm skill measurement form

Research Title : The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students.

Research Objectives :

1. The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students.
2. To compare students' musical rhythm skill before and after training course based on Orff music teaching theory

Assessor:

Position:.....

Workplace:.....

Directions: Please assess the congruence between components of musical rhythm skill and applications of appropriateness by putting \checkmark in the box according to following criteria.

Rating is +1. There is an opinion that “Corresponds to definition.”

Rating is 0. There is an opinion that “Not sure it corresponds to definition.”

Rating is -1. There is an opinion that “Inconsistent with definition.”

Evaluation Items	Assessment Results			Remarks
	+1	0	-1	
1. Rhythm theory knowledge				
2. Basic rhythm recognition				
3. Rhythm change understanding				
4. Rhythm recognition				

-
- 5. Rhythm playing skills

 - 6. Rhythm perception and mastery

 - 7. Musical expression

 - 8. Cooperative playing ability

 - 9. Music creation ability

 - 10. Rhythm improvisation
-

Suggestions:

.....

.....

Sign.....Assessor
(.....

Appendix C

The Results of the Quality Analysis of Research Instruments

Analysis of training course activity plans Index of Item Objective Congruence(IOC) Based on Orff music teaching theory by Experts

Training course activity plan 1: Theoretical knowledge

No.	Items	Expert	Total			IOC value	Conclusion
			1	2	3		
1	Content	+1	+1	+1	3	1.00	suitable for use
2	Explanation	+1	+1	+1	3	1.00	suitable for use
3	Objective of Leaning	+1	+1	+1	3	1.00	suitable for use
4	Training course activity	+1	+1	+1	3	1.00	suitable for use
5	Instructional Media	+1	+1	+1	3	1.00	suitable for use
6	Evaluation method	+1	+1	+1	3	1.00	suitable for use
7	Assessment tool	+1	+1	+1	3	1.00	suitable for use

Analysis of training course activity plans Index of Item Objective Congruence(IOC) Based on Orff music teaching theory by Experts

Training course activity plan 2: physical training

No.	Items	Expert	Total			IOC value	Conclusion
			1	2	3		
1	Content	+1	+1	+1	3	1.00	suitable for use
2	Explanation	+1	+1	+1	3	1.00	suitable for use
3	Objective of Leaning	+1	+1	+1	3	1.00	suitable for use
4	training course Activity	+1	+1	+1	3	1.00	suitable for use
5	Instructional Media	+1	+1	+1	3	1.00	suitable for use
6	Evaluation method	+1	+1	+1	3	1.00	suitable for use
7	Assessment tool	+1	+1	+1	3	1.00	suitable for use

Analysis of training course activity plans Index of Item Objective Congruence(IOC) Based on Orff music teaching theory by Experts

Training course activity plan 3: musical instrument training

No.	Items	Expert	Total			IOC value	Conclusion
			1	2	3		
1	Content	+1	+1	+1	3	1.00	suitable for use
2	Explanation	+1	+1	+1	3	1.00	suitable for use
3	Objective of Learning	+1	+1	+1	3	1.00	suitable for use
4	Training course Activity	+1	+1	+1	3	1.00	suitable for use
5	Instructional Media	+1	+1	+1	3	1.00	suitable for use
6	Evaluation method	+1	+1	+1	3	1.00	suitable for use
7	Assessment tool	+1	+1	+1	3	1.00	suitable for use

Analysis of musical rhythm skill measurement form Index of Item Objective Congruence (IOC) by Experts

Evaluation Items	expert			Total	IOC value	conclusion
	1	2	3			
1. Rhythm theory knowledge	+1	+1	+1	3	1.00	suitable for use
2. Basic rhythm recognition	+1	+1	+1	3	1.00	suitable for use
3. Rhythm change understanding	+1	+1	+1	3	1.00	suitable for use
4. Rhythm recognition	+1	+1	+1	3	1.00	suitable for use
5. Rhythm playing skills	+1	+1	+1	3	1.00	suitable for use
6. Rhythm perception and mastery	+1	+1	+1	3	1.00	suitable for use
7. Musical expression	+1	+1	+1	3	1.00	suitable for use
8. Cooperative playing ability	+1	+1	+1	3	1.00	suitable for use
9. Music creation ability	+1	+1	+1	3	1.00	suitable for use
10. Rhythm improvisation	+1	+1	+1	3	1.00	suitable for use

Appendix D
Certificate of English

**BS
RN** BANSOMDEJCHAOPRAYA
RAJABHAT UNIVERSITY

This is to certify that

Miss Liping Wang

Achieved BSRU English Proficiency Test (BSRU-TEP) level

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(Assistant Professor Dr Kulsirin Aphiratvoradej)
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Appendix E
Turnitin Plagiarism Check Report

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SPU:0203/4261

3 October 2023

Title: Paper Acceptance

Dear Wang Liping

On behalf of the Organizing Committee and Peer Review Committee, we are pleased that your paper titled,

-THE DEVELOPMENT OF TRAINING COURSE BASED ON ORFF MUSIC TEACHING THEORY TO IMPROVE MUSICAL RHYTHM SKILL OF UNDERGRADUATE STUDENTS-

submitted for presentation at the 18th National and the 8th International Sripatum University Conference (SPUCON2023) on Research and Innovations to Sustainable Development, held on 27 October 2023, is formally accepted for inclusion in the conference program.

The conference program is shaping up to reflect a wonderful event. We hope that you will be able to fully participate in the conference and take advantages of all the benefits that this conference offer participants and attendees. Besides, your presented paper will be published in the on-line proceedings which will be available at <http://spucon.spu.ac.th>

We are looking forward to meeting you.

Sincerely yours,

(Assoc. Prof. Subin Yurarach, Ph.D.)
Chairman of Peer Review Committee
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Contact:

Center for Research Support and Education Quality Assurance, Sripatum University
2410/2 Phaholyothin Rd. Senanicom, Chatuchak, Bangkok 10900
E-mail : spucon@spu.ac.th Line ID: spuresearch
Tel: 02-579-1111 ext.1131, 1336, 1155



This is to certify that

Wang Liping, Phenporn Thongkamsuk, Jittawisut Wimuttipanya

have successfully completed the paper presentation

**at the 18th National and the 8th International
Sripatum University Online Conference (SPUCON2023):
Research and Innovations to Sustainable Development**



on 27th October 2023

A handwritten signature in blue ink, appearing to read 'R. Pookayaporn'.

Dr. Rutchaneeporn Pookayaporn Phukkamarn

President

Sripatum University, Thailand

SPUCON2023-EN-016

**THE DEVELOPMENT OF TRAINING COURSE BASED ON ORFF MUSIC
TEACHING THEORY TO IMPROVE MUSICAL RHYTHM SKILL OF
UNDERGRADUATE STUDENTS**

Wang Liping

Graduate School, Bansomdejchaopraya Rajabhat University, Thailand

E-mail: 472889003@qq.com

Dr.Phenporn Thongkamsuk

Faculty of Education, Bansomdejchaopraya Rajabhat University, Thailand

E-mail: drphenpornbsru@gmail.com

Assoc.Prof.Dr.Jittawisut Wimuttipanya

Faculty of Education, Bansomdejchaopraya Rajabhat University, Thailand

E-mail: Jittawisut21@gmail.com

ABSTRACT

The objectives of this research were 1) to develop of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students.2) to compare students' musical rhythm skill before and after training course based on Orff music teaching theory, The sample group included 30 first-year students majoring in music education from City College , in the first semester of the academic year 2023, those who obtained through cluster random sampling cluster random sampling method. The research instruments included 1) training course activity plans based on Orff music teaching theory and 2) musical rhythm skill measurement form. Data were statistically analyzed by mean, standard deviation, and t-test for dependent samples. The results were found that:

1) Development training course based on Orff music teaching theory for undergraduate students, Training courses include: module 1 theoretical knowledge., module 2 physical training and module 3 musical instrument. training course in total have 12 hours, it was found that students' musical rhythm skill has been improved, students can more accurately grasp the rhythm elements in the music, remember and master a variety of complex rhythm types faster, and better understand the emotion and expression in the music

2) Using training course based on Orff music teaching theory, the musical rhythm skill of students after class is significantly higher than before class, with statistical significance at level .01.

KEYWORDS: Training course, Orff music teaching theory, Music rhythm skill,

1. Introduction

Orff music teaching theory is a music education theory proposed by Carl Orff, the German music educator, at the beginning of the 20th century. (Zhou, 2020) This theory advocates the combination of music education with children's life, learning and creation, and cultivating children's musical ability and artistic beauty through games and collective creation. The theory of Orff music teaching is an innovation and attempt of the traditional music education mode. He believes that traditional music education puts too much emphasis on the teaching of skills and professional knowledge, and ignores children's subjectivity and creativity, which makes them lose interest and love for music. Therefore, Orff proposed a model of music education that is close to the nature of children, aiming to stimulate children's musical potential and creativity.

In this study, we use Orff music teaching theory as the research framework, which includes different aspects of cognition, behavior and emotion. Under this theoretical framework, we seek to develop short-term training courses, improve the existing music training mode, and improve students' sense of music rhythm. This article sorts out the theoretical knowledge of Orff music teaching theory, (Fang, 2016) tries to effectively improve students' sense of music rhythm from multiple perspectives. It is hoped that by using Orff music teaching theory to develop training courses, students' sense of music rhythm can be improved. The specific content includes: 1) The introduction and analysis of the Orff music teaching method, analyze the influence mechanism of Orff music teaching on music rhythm skills. 2) Design and implementation of courses based on the Orff music teaching method to cultivate students' ability to rhythm and skills. 3) Through questionnaire surveys and experimental research, the influence of courses based on the Orff music teaching method on students' music rhythm skills, explore the application value of Orff music teaching method in terms of music rhythm skills. 4) Through data analysis and comparison, summarize the improvement of courses based on the Orff music teaching method on the improvement of children's music rhythm skills, put forward suggestions for further improvement and improvement, and provide reference opinions for the development of music education.

In summary, there are some problems and challenges in the application of Orff music teaching theory both at home and abroad. Through study design and empirical analysis, this study aims to improve college students through the development of training courses, and provide a new idea and method to solve the existing problems. At the same time, the study also explores the influence of Orff music teaching theory on the teaching model, and the research limitations and challenges, and proposed corresponding coping strategies. At the same time, the results of this study also provide some enlightenment and prospects for the future related research.

2. Research Objective

1. To develop of training course based on Orff music teaching theory to improve musical rhythm skills of undergraduate students.
2. To compare students' musical rhythm skill before and after training course based on Orff music teaching theory

3. Literature Review

3.1 The Development Training Course

Developing a training course usually refers to a series of training activities designed and implemented to meet specific work or learning needs, training course development means recreating or improving existing courses. To conform to a changing society. The learning experience is planned and developed to guide the Teaching and Learning (Kasama, 2009), in order to develop a curriculum, the basics should be studied. Prepare a draft course. Implementing the curriculum (Klaharn, 2018), evaluating the curriculum (Li, 2002), and improving it to ensure completeness and efficiency.

3.2 Orff music teaching theory

"Orff music teaching method" was created by Orff, a famous musician in the Federal Republic of Germany, the Orff music teaching method has been widely used in many schools. The reason is that the Orff music teaching method pays more attention to students' perception, understanding, interpretation ability and imagination of music. (Li, 2021) pointed out that: by applying Orff music teaching method to music rhythm teaching, the students' music rhythm can be cultivated through the training of musical instruments such as triangle iron, double ring ring, bell string and tambourine, and realize teaching and entertainment through the teaching method of gamification; (Yuan, 2019) point out among the world's music education systems, the Orff music education system is one of the most mature systems. It emphasizes the original music education and advocates learning and experiencing music naturally and instinctively.

3.3 Training course based on Orff music teaching theory

Designed to provide music educators with the necessary skills and knowledge to effectively teach music using the Orff approach. The course typically includes hands-on training in the use of percussion instruments, vocal techniques, movement, and dance, as well as instruction in Orff philosophy and curriculum development. The Orff approach emphasizes active participation, improvisation, and the use of rhythm, melody, and movement to help students develop their musical skills. Through the training course, music educators can learn how to incorporate these principles into their teaching, and provide a dynamic and engaging music education experience for their students. IN addition to developing practical skills, the Orff Music Pedagogy Development Training Course also provides opportunities for participants to explore the theoretical and philosophical underpinnings of Orff. This can help educators develop a deeper understanding of the approach, and its potential to enrich the lives of their students.

Step 1: Introduction, the introduction stage is the first part of the course at the beginning of the course. The purpose is to attract students' attention and attract students' interest. Teachers can import them by songs, games, stories, etc., allowing students to enter the music world and create a good learning atmosphere. The introduction process should make full use of the students' interests and imagination, so that students can feel the fun and beauty of music.

Step 2: Lecture, this stage is an important part of the Orff music teaching method. The main purpose is to teach students music knowledge and skills. During the explanation stage, teachers can introduce the basic knowledge and performance skills of music to students through singing, jumping, and playing, so that students can understand and master

the nature and laws of music. The explanation link should pay attention to explaining the levels and organized ways, so that students can gradually master music knowledge and skills.

Step 3: Practical exercises, practice exercises are an important part of the Orff music teaching method. The main purpose is to allow students to master music skills and performance skills in practice. In the practice practice, teachers will guide students to perform practical activities such as dancing, percussion, chorus, etc., so that students can feel the fun of music in a variety of music practice, understand and master the skills and performance skills of music. The practical session should pay attention to inspiring students' thinking and guide students to create and perform independently.

Step 4: Summary, the summary stage is the last part of the course at the end of the course. The purpose is to allow students to reflect on the content of learning and consolidate the music knowledge and skills they have learned. Teachers can summarize the content of the whole lesson, ask questions, and allow students to discuss group discussions to allow students to summarize the content learned, consolidate and deepen the knowledge and skills they have learned, and lay the foundation for the next study. In summary, we must pay attention to the growth of students and encourage students to gradually improve their artistic expression ability.

3.4 Musical Rhythm Skill

In music teaching, rhythm is an important element of music. No matter at home or abroad, rhythm teaching is an important part of music teaching. It plays a decisive role in the cultivation of students' imagination, aesthetic ability, innovation consciousness and innovation ability. After consulting relevant literature, (Huang, 2020) Some experts believe that the rhythm is the soul of music. Music organizes monotonous melody sounds with ups and downs through rhythm, which arouses human resonance and thus produces emotional resonance. Rhythm training in music can enhance people's musical imagination and creativity. Musical rhythm skills means through knowledge and practice to understand, perceive, express and master rhythm in music. Rhythm is the organization of time and duration in music, usually through a series of regular strong and weak beats and note duration. This skill involves the perception, memorization and performance of musical rhythms, making musical performances more accurate and expressive

3.5 Research Framework

The development of training course based on Orff music teaching theory to improve musical rhythm skill of first year students of undergraduate students. The research concept framework is as follows:

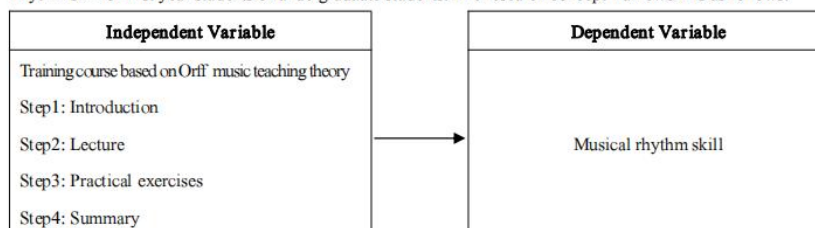


Figure 1 Research Framework

3.6 Research Hypotheses

After the training course based on Orff music teaching theory, the students' musical rhythm skill has been improved explicitly.

(Mohamad, 2016). This study aim of this study is to examine the application of Carl Orff technique in "Rhythm in Words" strategy to enhance pupils' music note reading skill in a Malaysian primary school in Raub, Pahang. The sample of this study is 17 pupils of Year 4 pupils aged of ten consist of 10 boys and 7 girls. However, only 10 pupils were selected for final test, Findings show that the sample showed improvement after the two music lessons. (Liao, 2014). in the book "Orff Music Education Thought and Practice" introduced in detail the development and implementation of Orff music education theory. Orff theory of music education is a method of music education with rhythm and rhythm as the core, which emphasizes the trainees to explore and explore musical elements through games and interaction, so as to improve their musical skills and expression. This study concludes that by implementing the Orff music teaching theory on students, their musical rhythm skill after class is significantly higher than that before class. This is consistent with the research hypothesis.

4. Research Methodology

4.1 Research Design

The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students. the methodology of this research and development. This research is experimental research. One group Pretest – Posttest design was used with the following experimental design:

Table 1. Experimental design.

Group	Pretest	Experimental	Posttest
R	O ₁	X	O ₂

The meaning of the symbols used in the experimental design.

R	means	Random Sampling
X	means	experimental
O ₁	means	Pretest
O ₂	means	Post-test

4.2 Population and Sample

4.2.1 Population

The population of this research was 90 first-year students majoring in music education in City College, with 3 classes and 30 students in each class.

4.2.2 The Sample Group

The sample group of this research was 30 First-year students from Class I, majoring in

music education in the first semester of the academic year 2023 of City College, through the cluster random sampling from 1 class, each class has student's mixed ability, high level, medium level and low-level abilities.

4.2.3 Research Instrument

The development of training course based on Orff music teaching theory to improve musical rhythm skill of undergraduate students. The research Instruments is as follows:

4.2.3.1 Training course activity plans based on Orff music teaching theory

- 1) Learn about Orff music teaching theory, based on objectives, content, measurement and evaluation guidelines, and develop a curriculum training plan for teacher behavior
- 2) On the basis of learning the theoretical knowledge, set the training objectives, training content and training time
- 3) Learn relevant concepts and theories through literature, library materials and other methods, and make training plans
- 4) The researchers formulated curriculum activity plans using the Orff music teaching theory, and selected 3 modules of theoretical knowledge, physical training and musical instrument training. A total of 12 hours. Each curriculum activity plan specifies themes in detail according to the Orff music theory: 1) content, 2) explanation, 3) objective of learning, 4) Curriculum training Activity, 5) Instructional Media 6) Evaluation method, 7) Assessment tool
- 5) Submit the completed curriculum activity plans to the tutor, check the consistency and applicability of the content, and make modifications according to the tutor's suggestion.
- 6) Submit the revised curriculum activity plans to 3 experts for review to verify the accuracy and applicability of teaching content, the consistency of learning objectives, content, learning activities, teaching media, and measurement and evaluation. Find the IOC congruence index (Index of Item Objective Congruence). The consistency indicator of each evaluation content is greater than or equal to 0.5 and it's considered suitable for research. The ICO value for each question in this evaluation criteria is 1.00.

4.2.3.2 musical rhythm skill measurement form.

- 1) Analyze the content of musical rhythm skill consistent with the curriculum activity plans.
- 2) Learn theories and methods of musical rhythm skill assessment from the literature and relevant research.
- 3) According to the definition and dimensions of musical rhythm skill, and referring to the musical rhythm skill evaluation instruments of previous researchers, the musical rhythm skill evaluation standard is designed. The scoring criteria and corresponding scores have been established for all 10 evaluation points: 1 point, 2 points, and 3 points. The full score is 30 points. Different scores represent varying degrees of self-directed learning ability. 27-30 points represent strong; 23-26 points represent relatively strong; 18-22 points represent general; 14-17 points represent relatively weak; 10-13 points represent weak

4) The consistency indicator of each evaluation content is greater than or equal to 0.5 and it's considered suitable for research. The ICO value for each question in this evaluation criteria is 1.00. Check the reliability of measurement standard using Cronbach's α Coefficient=0.92, which can be used for research.

4.2.4 Data Collection

1. Invite 3 relevant professional scholars and experts, issue official documents of Bansomdejchaopraya Rajabhat University professional scholars and experts, and provide information on research content and research tools: curriculum activity plans and musical rhythm skill scoring criteria for consideration of the goal alignment index: IOC. Collect IOC inspection data from 3 professional academic experts.

2. This study is an experimental study. According to the research tools developed by the researchers, scores were carried out before and after the experiment, and evaluation data were collected.

4.2.5 Data Analysis

1. Analyzed and verified the effectiveness of the Training course and curriculum activity plans based on Orff music teaching theory And musical rhythm skill measurement form scoring criteria, taking the consistency index as the consideration standard (Index of Item Objective Consistency: IOC).

2. Analyze basic student information by finding hundreds and percentages, including analyzed musical rhythm skill of students before and after the implementation of the experiment was scored. Using the data obtained from the experiment to analyze the statistical data through the mean value, standard deviation and t-test for dependent samples.

5. Research Findings

This research conducted an experimental study on 30 first-year students in Yunnan Communication Vocational and Technical College, including 25 females (83.33%) and 5 males (16.67%). According to the research topic, the summary of the research on improving college students' musical rhythm skill through the Orff music teaching theory is as follows:

1) Development training course based on Orff music teaching theory for undergraduate students, Training courses include: module 1 theoretical knowledge, module 2 physical training and module 3 musical instrument. training course in total have 12 hours. it was found that students' musical rhythm skill has been improved, students can more accurately grasp the rhythm elements in the music, remember and master a variety of complex rhythm types faster, and better understand the emotion and expression in the music

2) the researcher analyzed the data and used mean, standard deviation, and t-test dependent to analyze the scores of students' musical rhythm skill before and after class. The data analysis results are shown in Table

Table 1. The comparison of students' musical rhythm skill before and after the implementation training course based on Orff music teaching theory

musical rhythm skill	n	full scores	\bar{X}	SD.	t	p
Before class	30	30	14.47	3.01	34.51**	.000
After class	30	30	23.93	3.27		

** Statistically significant at level. 01 ($p < .01$)

Table 1 Subsequently, the researchers analyzed the students' musical rhythm skill before and after class using the Orff Music Teaching theory, by implementing the Orff music teaching theory, the scores of musical rhythm skill before and after class for first-year students are 14.47 points on average before class, 23.93 points after class, and the difference in average scores is 9.47 points, indicating that the scores after class are higher than before class. Shows that the average score of first-year students' musical rhythm skill after class is higher than the average score before class, indicating that students' musical rhythm skill after class is higher than before class. $P < .01$ indicates statistical significance at the .01 level. By implementing the Orff music teaching theory on students, their musical rhythm skill after class is significantly higher than that before class. This is consistent with the research hypothesis.

6. Discussion

The aim of this study is to enable first-year college students to improve their musical rhythm skills through the Orff music teaching theory (Ye, 2018) practical research shows: the core idea of Orff music teaching method is to respect and cultivate the musical potential of every student, so that they can learn and explore music in personal experience. In the training course, students are encouraged to express and create freely, which not only improves their musical skills, but also develops their innovative thinking and teamwork skills. (Zhang, 2018) The comprehensive characteristics of Orff music teaching method have also been fully reflected in the training course. By combining various elements such as movement, language and dance, the training course not only cultivates students' sense of rhythm and musical skills, but also comprehensively improves their artistic literacy and humanistic knowledge, and also focuses on cultivating students' emotional experience of music. In the training course, students not only learn music knowledge, but also express their feelings and thoughts through performance and creation, so as to cultivate their aesthetic ability and emotional expression ability. (Hui, 2021) In the training course, students can be exposed to music in different fields and styles, and improve their music appreciation ability and cultural literacy by comparing and analyzing the characteristics of different music. At the same time, this teaching method also emphasizes the interdisciplinary integration of learning, which helps to cultivate students' comprehensive quality and future development potential.

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The conclusions of this study are consistent with those of (Wang, 2020) conducted a survey on the current teaching situation in universities and found that In the music teaching of colleges and universities in my country, the implementation of Orff teaching can enable students to learn complex teaching content as soon as possible when learning music. Students can arrange some simple rhythm games in the early stage of learning, so that students can easily accept it. Familiar with the rhythm problem, the teacher can do some comprehensive exercises, practice different rhythms, and also add some simple performance movements. With the deepening of this part, you can also add some musical instruments. Through this step-by-step process, students can easily master such complex learning content, which is also conducive to students' understanding of music theory, and at the same time increases students' interest in learning.

7. Suggestion

1. Orff music teaching theory has a higher standard for teachers' teaching, which can be considered as a combination of opportunities and challenges. Teachers need to have solid music knowledge and teaching skills to be able to effectively teach the relevant knowledge and skills of music rhythm. We also need to pay attention to the role change in the training course, no longer a simple transmitter, but pay more attention to the guide and motivator who guide students to study independently. In the training course, teachers should take students 'needs and interests as the starting point, and flexibly use different teaching methods and means to stimulate students' enthusiasm and initiative in learning.

2. Practical research shows that the teaching of rhythm is very necessary for junior middle school music classroom, and improving students' sense of music rhythm can play a good role in creating an efficient classroom. Future research can further deepen the implementation effect of the training curriculum, the improvement of the teaching mode, and the correlation research of Orff music teaching theory, so as to promote the development of music education.

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Research Profile

Name-Surname: Wang Lliping
Birthday: September 28, 1989
Place of Birth: Kunming City, Yunnan Province

Educational Background:

- Master of Educational Program in training course and Instruction, Bansomdejchaopraya Rajabhat University, in 2020
- Bachelor of Educational Program in Mathematics, Honghe University, in 2011

Work Experience:

- Teacher, Yunnan Communication Vocational and Technical College , from 2011 to the present
-

Office Location:

Yunnan Communication Vocational and Technical College ,Kunming City, Yunnan Province , China

Current Contact Location:

No. 2502, Gaodeng Road, Chenggong District, Kunming City, Yunnan Province, China