



Development of Playing Chinese Percussion Instrument Course Based on Task-based Learning and Team-based Learning to Enhance Playing Chinese Percussion Instrument Performance of the First-Year Students at Xi'an University

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Abstract

Background and aim: The significance of Chinese percussion instruments is undeniable since they play a crucial part in Chinese music education. Nevertheless, there is a lack of extensive research on efficient teaching methodologies to improve student performance in this domain. Prior research has examined music education in a broad sense, but it has frequently neglected the particular difficulties and advantages related to learning Chinese percussion instruments. Furthermore, the comprehensive investigation of contemporary pedagogical methodologies, such as task-based learning (TBL) and team-based learning (TBL), in music education has not been extensively explored, particularly in Chinese percussion. The purpose of this study is to investigate the impact of these novel learning techniques to enhance the playing Chinese percussion instruments performance of the student. This research and development aimed to 1) explore the background information and focus on course components of playing Chinese percussion instrument course based on task-based learning and team-based learning, 2) develop playing Chinese percussion instrument course based on task-based learning combined with team-based learning, 3) determine the effectiveness of implementing playing Chinese percussion instrument course based on task-based learning and team-based learning to improve playing percussion instrument performance by comparing students' playing percussion instrument performance before and after course implementation.

Materials and methods: This study is divided into 3 phases; the first phase: studying the background information through reviewing documents and interviewing 10 experts in teaching percussion instruments and 10 students who already learned in this course, the second phase: constructing and verifying the developed course by 5 experts, and third phase: implementing the course with a sample of 50 first-year students at Xi'an University which were obtained by cluster random sampling. The tools used in this phase were as follows: 1) Task-based and Team-based learning on the playing Chinese percussion instrument course and its lesson plan, 2) A playing Chinese percussion instrument performance scoring rubric with a reliability was at 0.89. The statistics used to analyze the data include the mean, standard deviation, and t-test for the dependent sample.

Results: The research results covered the 3 research objectives were found that 1) The Chinese percussion instrument course mainly focuses on teachers' teaching and students' passive acceptance, which does not form the students' active and independent learning consciousness, and the learning efficiency is low, and the academic performance is poor. 2) The Chinese percussion instrument course based on Task-based and Team-based learning includes principles, objectives, content, teaching steps, teaching materials, and learning evaluation. Moreover, teaching steps include (1) Problem design. (2) Study analysis. (3) Learning to support the analysis. (4) Group Formation and Task Assignment (5) Research and Preparation (6) Group presentation (7) Conclusion and Homework Assignment Improve after class. 3) After the implementation of the playing Chinese percussion instrument course based on task-based and team-based learning, the students' post-test score of the Chinese percussion instrument performance was higher than before its implementation, reaching a statistical significance level of 0.05.

Conclusion: The innovation of this study is that the components of the curriculum include six aspects: principles, objectives, content, teaching steps, teaching materials, and learning assessment. Moreover, the seven teaching steps developed based on task-based and team-based learning curriculum design can greatly improve student learning efficiency, especially helping to enhance playing Chinese percussion instrument performance of the first-year students at Xi'an University. An important principle of the task-based and team-based learning teaching methods is to maximize the students' subjective learning initiative. This study should provide students with more options for teaching techniques. Therefore, it is necessary to study the use of other teaching techniques to develop scientific learning outcomes and learning skills.

Keywords: Chinese Percussion Instrument Course; Task-based Learning; Team-based Learning, Playing Chinese Percussion Instrument Performance, Xi'an University, China



Introduction

Music educators convey knowledge to their students in the same manner as their predecessors did. An educator who has advanced training in auditory lessons may consider placing a lower premium on sight-reading abilities. (Fox, 2021). Likewise, an orchestral musician could very well employ excerpts to teach and hone technical and musical abilities. An educator who has carved out an exceptional career trajectory in school may give greater autonomy to his or her students. (Luo & Saihong, 2023). An instructor who has received overseas education may infuse the syllabus with a global perspective. The process of evaluation enables us to evaluate the effectiveness of both established practices and innovative solutions and make necessary curriculum adjustments. (Chattaraman et al., 2019). According to Choleva et al. (2021); and Kang and Yoo (2019) To the Chinese Percussion Specialists' responses, curricula keep evolving, with an increasing amount of Western influence. While memorization has been a cornerstone of Chinese percussion education for decades, printed music is increasingly being used to expose students to a broader knowledge base. (Luo & Saihong, 2023). Furthermore, there seems to be a tendency toward broadening one's horizons and increasing receptivity to global concepts. Generally, it seems as though teachers have been given more freedom to revitalize their curricula. However, it does not appear as though musical learning strategies and more varied assessments are included in the revitalization of the curriculum. (Choleva et al., 2021).

The current Chinese percussion instrument course may lack a comprehensive approach to developing students' technical proficiency. (Chan, 2019). Mastery of percussion instruments requires precise motor skills, coordination, and rhythmical accuracy. However, the existing curriculum may not provide adequate opportunities for students to refine their techniques through targeted exercises and practical applications. (Dong, 2023). As a result, first-year students may struggle to produce desired sounds, execute complex rhythms, and perform with confidence, impeding their progress in percussion instrument playing. (Kang & Yoo, 2019; Liu et al., 2021; Roberts, 2022). Evaluation methods in Chinese percussion instrument courses may not effectively measure overall musical development, leading to worry and constraining students' playing percussion instrument ability (Guo et al., 2019). This study suggests using task-based learning and team-based learning in a playing Chinese percussion instrument course at Xi'an University to tackle these issues. The selection of Xi'an University for this research was based on its abundant cultural history and historical importance as a hub for traditional Chinese music teaching. Moreover, Xi'an's distinctive student population provides an excellent opportunity to investigate inventive instructional approaches for Chinese percussion, which can serve as a blueprint for other educational establishments in the area. Concurrently, the implementation of team-based learning facilitated collaborative endeavors, fostering a sense of cooperation among students as they collaborated to address musical obstacles, exchange perspectives, and collectively enhance their proficiency. (Ahmed & Hågen, 2023). Whereas, task-based learning is a pedagogical approach that fosters the development of collaborative skills among students (Humanez & Rios, 2009).

This study aimed to develop the playing Chinese percussion instrument course by combining task-based and team-based learning methods to enhance the students' playing percussion instrument ability.

Research Question

The following research questions were addressed in this study:

1. What is the background information relevant to developing playing Chinese percussion instrument courses based on task-based learning and team-based learning?
2. What are the components and quality of playing Chinese percussion instrument courses based on task-based learning and team-based learning to improve students' learning achievement and playing percussion instrument skills at Xi'an University according to background information?
3. How does the effectiveness of implementing the playing Chinese percussion instrument course based on task-based learning and team-based learning improve the playing Chinese percussion instrument performance at Xi'an University?

Research Objective

1. To explore the background information and focusing on course components of playing Chinese



percussion instrument course based on task-based learning and team-based learning to enhance playing Chinese percussion instrument performance.

2. To develop playing Chinese percussion instrument courses based on task-based learning and team-based learning in playing Chinese percussion instrument performance of the first-year students at Xi'an University.

3. To determine the effectiveness of implementing playing Chinese percussion instrument course based on task-based learning and team-based learning in playing Chinese percussion instrument performance.

Research Hypothesis

Playing Chinese percussion instrument performance after implementing playing Chinese percussion instrument course based on task-based learning and team-based Learning will be higher than before its implementation.

Literature Review

Percussion instruments have been in existence since ancient times. Ancient musical instruments, such as rocks struck together or pebbles rhythmically rattling in a gourd, continue to be employed in various capacities within both symphonic and popular music. (Guo, 2018). Since the inception of the 17th century, the designation "percussion instruments" has been utilized to classify two extensive categories of musical instruments. Percussion instruments fulfill a crucial function within a diverse range of musical genres, encompassing classical and orchestral compositions, as well as jazz, rock, pop, folk, and traditional musical styles. Musical compositions and performances are enhanced by the provision of rhythm, groove, texture, and energy. Percussion instruments play a significant role in contemporary music production and popular music, serving as integral components for captivating crafting rhythms and beats.

The foundation of a "Playing Percussion Instrument Course" is commonly grounded in the wider realm of music education and percussion studies. The purpose of this course is to furnish students with a thorough comprehension of percussion instruments, encompassing their techniques and their significance within diverse musical genres. (Tan & Conti, 2019). Percussion instruments have played a crucial role in the manifestation of human musical expression throughout various historical periods. With the progression of music education, the inclusion of percussion instruments has emerged as an integral element within numerous music programs and conservatories. (Xu, 2021). Percussion instruments encompass a diverse array of musical instruments, including but not limited to drums, cymbals, tambourines, and shakers. Each of these instruments possesses distinct playing techniques and serves various musical purposes. The inclusion of percussion instruments in music education curricula can be attributed to their fundamental contribution to rhythm, groove, and overall musicality. The act of instructing percussion provides students with the chance to develop a comprehensive comprehension and admiration for the fundamental rhythmic elements that underpin the art of music. (Campbell, 2021).

Curriculum Development Model

Curriculum development is an essential component of an education system, guiding instructors and students to accomplish specified learning goals. There are three primary models of curriculum development: Bobbitt and Charters, which are linear models consisting of four concepts, and the Tyler Model, which is a deductive, linear approach based on four fundamental principles. The Bobbitt and Charters concept has a resemblance to the process of constructing a curriculum, delineating an individual's trajectory towards growth, cultural understanding, and distinctive abilities. Tyler's approach is characterized by its higher level of complexity, as it encompasses a total of seven distinct processes for the building of the curriculum. The Taba Model, in contrast, employs an inductive approach, commencing with a foundational notion and progressing towards intricate particulars.

The Bobbitt and Charters model and Tyler model are linear models consisting of four concepts, whereas the Taba model is a more intricate process comprising seven steps. The researcher synthesized the principles of these three models to develop a comprehensive six-step course for teaching physical education in preschool (Campbell, 2021; Fox, 2021; Luo & Saihong, 2023). The course encompasses



the formulation of objectives, selection of content, choice of instructional strategy, selection of media and resources, and creation of evaluation instruments. This technique enables effective structuring of curriculum and instruction, guaranteeing that students' engagement with the material is both meaningful and pertinent to their learning encounters.

Playing Chinese percussion instrument course

The foundation of a "Playing Percussion Instrument Course" is commonly grounded in the wider realm of music education and percussion studies. The purpose of this course is to furnish students with a thorough comprehension of percussion instruments, encompassing their techniques and their significance within diverse musical genres. Percussion instruments have played a crucial role in the manifestation of human musical expression throughout various historical periods. With the progression of music education, the inclusion of percussion instruments has emerged as an integral element within numerous music programs and conservatories. (Campbell, 2021; Zhang, 2023). Percussion instruments encompass a diverse array of musical instruments, including but not limited to drums, cymbals, tambourines, and shakers. Each of these instruments possesses distinct playing techniques and serves various musical purposes. The inclusion of percussion instruments in music education curricula can be attributed to their fundamental contribution to rhythm, groove, and overall musicality. (Wales, 2021). The act of instructing percussion provides students with the chance to develop a comprehensive comprehension and admiration for the fundamental rhythmic elements that underpin the art of music.

Chinese percussion instrument playing courses were becoming increasingly popular among students in China. The country's rich musical heritage and the growing interest in music education have contributed to the rise in the popularity of such courses. China has been placing a growing emphasis on music education in recent years. (Campbell, 2021). The government recognizes the importance of arts and culture in fostering creativity and cultivating well-rounded individuals. As a result, more schools and educational institutions have been offering music programs, including courses on playing percussion instruments, to cater to the rising demand from students and their parents. China boasts numerous music conservatories and schools that offer specialized courses in various musical instruments, including percussion instruments. These institutions provide rigorous training to aspiring musicians and have produced many talented percussionists who have gained recognition both nationally and internationally.

Task-based learning

Task-based learning has been encouraged as a more complete way to cut down on the risks of role-oriented development since the 2000s (Humanez & Rios, 2009). In task-oriented development, a detailed definition of competency was given, with competency being defined as the skills and abilities needed to do complex tasks. As a result, task-oriented competency development focuses on the tasks and knowledge that go along with them. Most of the time, important tasks are identified, and detailed task statements are provided, which serve as the conceptual framework for the course. (Lin, 2023). The development of task-oriented competencies plays a crucial role in enhancing percussion playing ability. This literature review explores the existing research and scholarship related to the development of task-oriented competencies specifically in the context of percussion instruments. By examining studies that focus on task-based learning, practice strategies, and pedagogical approaches, this review aims to provide insights into effective methods for improving percussion playing ability (Chattaraman et al., 2019).

Percussion instrument task-based learning presents students with various musical challenges and opportunities for creativity. They might be tasked with creating their rhythms, improvising, or adapting existing pieces of music for percussion instruments. This problem-solving aspect of learning encourages students to think critically and creatively, strengthening their musical abilities (Humanez & Rios, 2009). Constructivist learning promotes authentic learning experiences that connect directly to real-life situations. In the case of percussion instrument task-based learning, students are engaged in activities directly related to the actual practice of playing and performing music (Han, 2018). This relevance and authenticity enhance students' motivation and enthusiasm for learning. By incorporating constructivist principles into percussion instrument task-based learning, educators can create a dynamic and student-centered learning environment. Students become active participants in their musical journey, leading to a deeper understanding of music, improved instrumental skills, and a lifelong appreciation for the art of





percussion and music as a whole (Han, 2018).

Team-Based Learning

Team-Based Learning (TBL) is an instructional strategy where university students are grouped into teams to engage in collaborative learning activities. (Scott, 2023). In the context of playing percussion instruments, TBL involves organizing students into teams to enhance their ability to learn and perform these instruments effectively. Through TBL, students work together to develop their percussion playing skills. They prepare individually by studying techniques, rhythms, and musical concepts related to percussion instruments. (Neagu, 2019). Then, they come together in teams to discuss and apply their knowledge through practical exercises and performances. This approach promotes active engagement, peer teaching, and critical thinking among students. In the context of playing percussion instruments, TBL fosters a supportive learning environment where students can learn from each other's strengths, receive constructive feedback, and collectively tackle challenges. By working collaboratively, students can enhance their playing abilities, rhythm mastery, and overall musical performance skills. (Xu, 2022).

The relationship between percussion team-based learning (TBL) and percussion instrument playing skills of university students enrolled in a percussion instrument course is intricate and impactful. TBL is an educational strategy that emphasizes collaboration, active engagement, and shared problem-solving among students. When applied to a percussion instrument course, TBL can significantly enhance the development of playing skills in several ways. Firstly, TBL encourages students to work together in teams. This collaborative approach exposes learners to diverse viewpoints, techniques, and strategies for playing percussion instruments. Through interactions with peers, students gain insights into different playing styles, which broadens their understanding and repertoire of skills.

Secondly, TBL incorporates active learning. Students engage in discussions, analyze musical pieces collectively, and practice in a group setting. This dynamic participation fosters critical thinking, decision-making, and rapid skill application – essential elements for becoming proficient percussionists. Thirdly, TBL promotes frequent practice and rehearsal. As students work together on percussion pieces, they rehearse more frequently, allowing for immediate feedback and skill refinement. Constructive criticism and peer evaluation within the team lead to continuous improvement, contributing to enhanced playing abilities.

Playing Chinese percussion instruments ability

The scholarly definition of “playing percussion instrument ability” refers to the level of proficiency and skill demonstrated by an individual in performing and manipulating various percussion instruments. It encompasses the technical proficiency, musical expression, rhythmic accuracy, ensemble playing, improvisation skills, and overall musicianship exhibited by a percussionist. (Xu, 2022). Playing percussion instruments requires mastery of specific techniques, such as hand and finger control, stick grip, stroke types, and coordination between limbs. It also encompasses the ability to produce a wide range of sounds, dynamics, and timbres using different percussion instruments, including drums, cymbals, xylophones, marimbas, and tambourines. (Roberts, 2022).

Furthermore, playing percussion instrument ability includes an understanding of musical context and interpretation. Percussionists must have a solid grasp of musical notation, rhythm, phrasing, and dynamics. They should be able to interpret and convey the intended musical expression through their performance, bringing life and emotion to the music. (Morrison & Rossing, 2018). Ensemble playing is an essential aspect of percussion instrument ability. Percussionists must be able to synchronize with other musicians, maintain a steady tempo, and contribute effectively to the overall musical ensemble. This involves listening skills, communication, and the ability to adapt to various musical styles and genres. (Parlikar & Jagannath, 2021)



Conceptual Framework

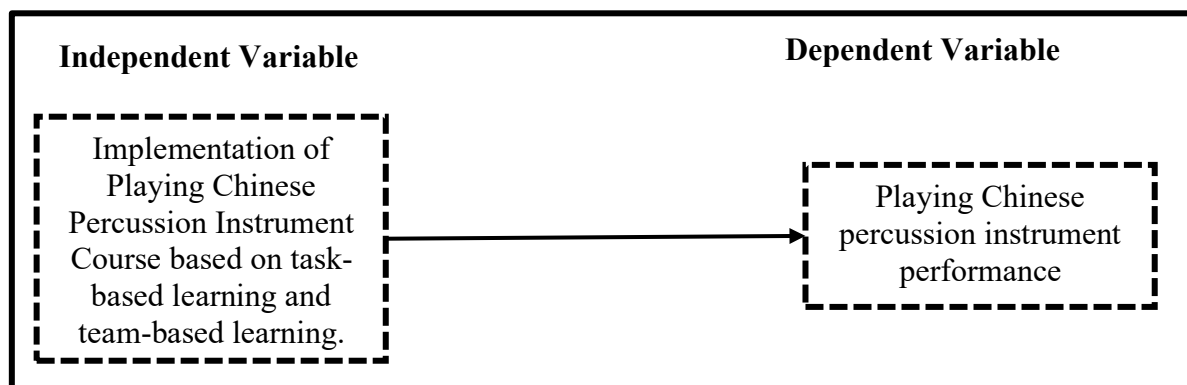


Figure 1 Conceptual Framework of the Study

Methodology

1. Population and Sample: The population in this study was 100 first-year students who enrolled in a Chinese percussion instrument course at Xi'an University, China. The sample of this study was 1 classroom (approximately 50 students/classroom) of first-year students who enrolled Chinese percussion instrument course in the first semester at Xi'an University. They were derived by using the cluster random sampling method.

2. The research instrument

The research instruments which were used in this study were as follows:

2.1 Chinese percussion instrument course combined with task-based and team-based learning document. The draft course document was evaluated by experts regarding the appropriateness and consistency of each component of the draft course. Five curriculum and teaching specialists examined the draft course, resulting in a 100% recall rate. Their average scores varied from 3.80 to 5.00, with an impressive overall average of 4.96 and a standard deviation of 0.45, suggesting widespread approval with minimal variation in ratings. This indicates that the initial curriculum is well-received and appropriate for use in the investigation.

2.2 Lesson plan in line with Chinese percussion instrument course combined with task-based and team-based learning

Phase 2 is dedicated to the creation of Chinese percussion instrument courses that utilize task-based learning and team-based learning methods. The goal is to enhance the learning outcomes and skill development of first-year students at Xi'an University in playing percussion instruments. The goal is to create a first-course document and receive feedback from experts before putting it into action. The preparatory course comprises the course rationale, objectives, curriculum, teaching methodology, instructional resources, and assessment methods. Expert evaluation of the draft course document is essential for determining its appropriateness and consistency. A committee comprised of five specialists assesses the course paper, evaluating the appropriateness and logical consistency of each component within the course. The assessment form employs a five-point continuum to gauge the level of suitability and uniformity.

Data collection and analysis were performed by administering the course evaluation form to a panel of experts to scrutinize the preliminary course document. The gathered data was examined for suitability and coherence by utilizing mean scores. A mean score above 3.51 suggests that the course document is suitable and internally consistent. Following the receipt of the evaluation results from experts, the initial course document is revised to improve its overall quality. The review process involves evaluating the acceptability and internal coherence of the course document, as well as examining its appropriateness and consistency.

Development of the scoring rubric

The development of the scoring rubric for evaluating percussion instrument performance required



a series of careful and precise measures to guarantee its efficacy and dependability. At first, the process commenced by examining the structure of the scoring rubric and analyzing pertinent papers to establish clear definitions and determine the essential elements of percussion instrument playing talents. The second phase entailed determining the suitable scoring methodology to utilize, either an analytic scoring rubric or a holistic scoring rubric. The analytic scoring rubric was selected for this study because of its meticulous evaluation capabilities. The scoring rubric was devised in the third phase to assess the capacity for innovative thinking. The document comprised three primary components: a description of the work, criteria for assessment, and degrees of achievement. The anticipated degree of student achievement for each criterion was explicitly delineated utilizing precise terminology while refraining from employing generic evaluation adjectives such as “poor” or “excellent.”

After completing the original version of the grading rubric, it was presented to thesis advisors to gather their opinions on its suitability, precision, accuracy, ambiguity, and language. The rubric was then modified by their ideas. Subsequently, the updated scoring rubric was presented to three experts to conduct a content validity check. The evaluation of the test’s quality was conducted using the Index of Item Objective Congruence (IOC), which was computed as follows: $IOC = \frac{\sum R}{N}$

The symbol $\sum R$ denotes. The sum of the marks given by experts, whereas N represents the total number of experts. If the item’s IOC (Item Objective Congruence) exceeded 0.5, it signified that the item was suitable for inclusion in the rubric. (Fouzul Kareema & Bt Zubairi, 2021). The research revealed that all items had an IOC range of 0.8 to 1.0, hence verifying their suitability for the exam. In the sixth step, the scoring rubric was further improved based on the feedback and recommendations provided by the experts. Ultimately, the grading rubric was tested and its reliability was calculated to assess its dependability. The reliability coefficient was determined to be 0.89, beyond the permissible threshold of 0.70. This indicates a substantial level of consistency and dependability in the scoring rubric.

Data collection

The course will be implemented in the samples during the Autumn semester of the academic year 2023. The data gathering employed during the course implementation process was as follows:

1) The pretest will be administered to the samples to measure learning achievement. A scoring rubric for playing the percussion instrument skill was used to evaluate the skill of playing the percussion instrument.

2) The experimental group will get instruction utilizing the task-based learning approach and team-based learning. The development of lesson plans and the allocation of time for instruction were considered. During the course implementation phase, the researcher closely monitored and systematically gathered a multitude of data points. The elements consisted of the instructional process, acquisition process, educational milieu, student conduct, and instructor conduct that occurred inside the confines of the classroom environment.

3) Following the completion of the instructional session, the samples experienced a posttest assessment employing the identical equipment used for the pretest.

Data analysis

In this study, quantitative data will be analyzed by using the statistical program in line with the research objectives, especially in the third objective which this study used statistical analysis to determine the different significance at a .05 level of the scores on playing Chinese percussion instrument performance among students at Xi’an University before and after implementing in a Chinese percussion instrument course based on task-based learning and team-based learning. The t-test for dependent samples was employed in this analysis.

Results

1. Result of the 1st objective: the information on course components of playing Chinese percussion instrument course based on task-based learning and team-based learning

Reviewing pertinent material and documents uncovered significant findings on the current status of playing Chinese percussion instrument course teaching at Xi’an University. The findings of evaluating the present course could be summarized as follows: The instruction and acquisition of percussion instruments present distinct challenges owing to their multifaceted characteristics. Percussion



instruments necessitate not solely technical aptitude, but also a robust comprehension of rhythm, coordination, and musicality. In addition, students must possess a comprehensive comprehension of the cultural and historical milieu within which these instruments have conventionally been employed. Traditional pedagogical methods in percussion music education at higher education institutions frequently employ passive learning, wherein students passively accept instruction from teachers and participate in repetitive exercises. This strategy has the potential to result in a decrease in student involvement and interest in subject matters. The current curriculum offered at Xi'an University may not comprehensively address the aforementioned challenges, thereby resulting in constraints on students' musical proficiency and holistic comprehension. The lack of consistency and standardization in percussion instrument course teaching materials used in undergraduate musicology courses at higher education institutions has resulted in a scarcity of suitable resources for group instruction that successfully combines theoretical knowledge and practical application. This highlights the necessity for the creation of standardized and thorough instructional resources to improve the caliber of percussion instrument education.

2. Result of the 2nd objective: the development of playing Chinese percussion instrument course based on task-based learning and team-based learning

2.1 Finding of the new course components

The course development comprises six components: rationale of course, aim of course, curriculum content, instructional procedure, instructional material, and learning assessment. The new course emphasizes task-based and team-based learning methods to enhance learning outcomes and develop proficiency in playing percussion instruments. The previous curriculum placed a strong emphasis on conventional instructional techniques, giving more importance to solitary learning rather than interactive and communicative approaches. The objective of the new course is to improve students' academic performance and practical skills in playing percussion instruments by implementing innovative instructional methods. The course at Xi'an University focuses on fundamental subjects for first-year students studying Chinese percussion instruments. These topics include an introduction to Chinese percussion instruments, the basics of rhythm and beat, the role of traditional Chinese percussion in music, advanced rhythmic patterns, ensemble coordination, improvisation and creativity, accompanying melodic instruments, composition and arrangement, rehearsal and refinement, and final performance and evaluation.

The new course encompasses a wide range of subjects and exercises, promoting the development of musical skills and knowledge for both individuals and groups through hands-on, cooperative, and perceptive encounters. The teaching process comprises the following steps: problem formulation, analysis of the subject matter, organization of study groups and assignment of tasks, research and preparation, group presentation, and ending with a homework assignment. Essentially, the new course seeks to offer a proactive and contemporary approach to instructing percussion instruments. It emphasizes task-based and team-based learning techniques, encourages student involvement, and facilitates musical development. The Chinese percussion instrument course at Xi'an University employs a systematic methodology that integrates task and team-based learning teaching paradigms to promote student involvement and deliver a holistic educational experience. The course provides a variety of educational resources, including textual, visual, audio, interactive, task-based, team-based, and music and notation software. The course's objective is to greatly improve students' learning outcomes and practical skills in playing percussion instruments by utilizing novel teaching approaches like task-based and team-based learning.

The curriculum comprises ten learning units: Introduction to Chinese Percussion Instruments, Fundamentals of Rhythm and Beat, Traditional Chinese Percussion in Music, Advanced Rhythmic Patterns, Ensemble Coordination, Improvisation and Creativity, Accompaniment of Melodic Instruments, Composition and Arrangement, Rehearsal and Refinement, and Final Performance and Evaluation. The teaching strategy is centered around the students, encouraging them to engage in individual learning and critical thinking to fully utilize their initiative. The teaching process comprises the following steps: problem formulation, analysis of the study, acquisition of knowledge to support the analysis, formation of groups and assignment of tasks, research and preparation, group presentation, and





conclusion and assignment of homework. Instructional materials encompass a variety of resources such as textbooks, training videos, learning materials, lesson plans, courseware, handouts, and evaluation tools. Evaluating students' learning helps ascertain their academic achievements and assists in tailoring the curriculum and teaching methods to cater to their requirements. The assessment format comprises a score evaluating the students' musical ability performance and a questionnaire measuring their happiness. The course's objective is to cultivate a favorable mindset towards education, promoting students' understanding and admiration of the cultural elements associated with Chinese percussion instruments. Additionally, it strives to nurture a spirit of collaboration and instill a drive for constant enhancement in students' musical skills.

2.2 Finding, of course, document evaluation by experts

This step aimed to determine the quality of the draft course document before its implementation. The draft course document was evaluated by experts regarding the appropriateness and consistency of each component of the draft course. The findings of the course evaluation which were collected and analyzed were presented in Table 1 as follows:

Table 1 The Findings of the Course Evaluation by Experts

No of items	M	SD	Interpretation of appropriateness and congruence
11	4.96	0.45	Very High level

As indicated in Table 1, the draft course was evaluated by five specialists in the field of curriculum and teaching, and the recall rate was determined to be 100%. The analysis determined that the experts' average score was 4.96, with a standard deviation of 0.09, indicating a very high level. The preliminary curriculum could be utilized in this investigation.

2.3 Finding of Lesson Plans Evaluation by Experts

The findings of lesson plans according to the playing Chinese percussion instrument course based on task-based and team-based learning, which were collected and analyzed by arithmetic means and standard deviation were presented in Table 2 below. This procedure aimed to determine the quality of the lesson plans before their implementation.

Table 2 The findings of lesson plan evaluation by experts

No	Lesson plan	M	SD	Interpretation
1	Introduction to Chinese Percussion Instruments	4.96	0.09	Very High level
2	Basics of Rhythm and Beat	4.93	0.15	Very High level
3	Traditional Chinese Percussion in Music	4.92	0.18	Very High level
4	Advanced Rhythmic Patterns	4.90	0.18	Very High level
5	Ensemble Coordination	4.94	0.12	Very High level
6	Improvisation and Creativity	4.92	0.18	Very High level
7	Accompanying Melodic Instruments	4.93	0.15	Very High level
8	Composition and Arrangement	4.92	0.18	Very High level
9	Rehearsal and Refinement	4.94	0.12	Very High level
10	Final performance and evaluation	4.92	0.18	Very High level

As presented in Table 2, in the 15 items of the eight lesson plans evaluation form, the experts' average score ranged from 4.90 to 4.96, with a standard deviation ranging from 0.09 to 0.18. It was revealed that the lesson plan was high-level.



3. Result of the 3rd objective: the determination of the effectiveness of implementing the playing Chinese percussion instrument course based on task-based learning and team-based learning in playing Chinese percussion instrument performance

The course was implemented with 100 first-year students at Xi'an University in the academic year 2023. The one-group pretest-posttest design was used as a procedure to investigate the effectiveness of course implementation. The findings were presented as the following.

Finding of comparison of playing Chinese percussion instrument performance before and after implementation of Chinese percussion instrument course based on task-based learning and team-based learning

The findings of the comparison of playing Chinese percussion instrument performance between pretest and post-test scores which were analysed by using t- a test for dependent samples were presented in the below table. This table aimed to answer the research objective about whether the Chinese percussion instrument course was able to enhance playing Chinese percussion instrument performance.

Table 3 The pre-test and post-test scores of students

Group	n	Pretest scores		Post-test scores		t	p	Effect size
		M	SD	M	SD			
Experimental Group	50	26.20	6.86	34.64	7.20	8.29*	0.001	1.17

* p<0.05

As presented in Table 3, the average pre-test score of Students playing Chinese percussion instrument performance was 26.20, and the standard deviation was 6.86 the average post-test score of Students playing Chinese percussion instrument performance was 34.64, and the standard deviation was 7.20. In addition, it aims to check different scores before and after the implementation of the Chinese percussion instruments courses based on task-based learning and team-based learning. The findings in this table show that after learning based on task-based and team-based learning teaching models, students' playing percussion instrument performance is greater than 26.20 at the statistical significance level of 0.05 ($t=8.29$ $p < .05$). The mean score of the study was increasingly higher than the pre-test test. The effect size of Cohen's in this study was 1.17, it was a large effect of learning to play Chinese percussion instrument courses through task-based and team-based learning on students' percussion instrument performance.

Discussion

1. Discussion of studying the background information for course development

In the early stage, the researchers discussed the research background of this study from the current situation of traditional teaching, the development of problem teaching methods, the development of the rise of task-based and team-based learning, and so on, and briefly introduced the research content of this study. The definition, connotation, characteristics, theoretical basis, and teaching practice are expounded respectively, which lays the foundation for the development of the Chinese percussion instrument course based on task-based and team-based learning course of Xi'an University and lays the theoretical foundation for improving the playing Chinese percussion performance of the student.

In the context of music education, the comprehensive application of task and team-based learning in teaching and the in-depth development of the integration of task and team-based learning and the Chinese percussion instrument curriculum. To begin with, understanding the historical and cultural context of Chinese percussion instruments is paramount. This includes delving into the origins, evolution, and traditional significance of these instruments in Chinese music. By gaining insights into the cultural nuances and artistic expressions associated with Chinese percussion, educators can tailor the course content to provide a holistic and culturally enriched learning experience for students.

2. Discussion of development of playing Chinese percussion instrument course based on task-based learning combined with team-based learning to improve playing Chinese percussion



instrument performance

The development of Chinese percussion instrument courses from task-based and team-based learning methods teaching is essentially a kind of teaching. The return of the origin of learning makes people return to the origin of knowledge to experience education and shows that the classroom shifts from teacher-oriented to student-centered, the nature of the curriculum changes from "teaching-centered" to "learning-centered", and the teaching design changes from "teaching" to "learning" (Chattaraman et al., 2019; Dong, 2023). Chinese percussion instrument playing courses were becoming increasingly popular among students in China. The country's rich musical heritage and the growing interest in music education have contributed to the rise in the popularity of such courses. China has been placing a growing emphasis on music education in recent years. The government recognizes the importance of arts and culture in fostering creativity and cultivating well-rounded individuals. As a result, more schools and educational institutions have been offering music programs, including courses on playing percussion instruments, to cater to the rising demand from students and their parents. China boasts numerous music conservatories and schools that offer specialized courses in various musical instruments, including percussion instruments. These institutions provide rigorous training to aspiring musicians and have produced many talented percussionists who have gained recognition both nationally and internationally.

The utilization of task-based learning has been acknowledged as a highly effective pedagogical strategy within the realm of music education. Numerous studies have demonstrated the beneficial effects of task-based learning on the development of proficiency in percussion instrument performance. An empirical investigation conducted by Scott (2023), revealed that the implementation of task-based learning methodologies resulted in notable improvements in technical proficiency, rhythmic precision, ensemble performance, and improvisational aptitude among students specializing in percussion. Task-based learning is a pedagogical approach that fosters active learning and skill development through the engagement of students in authentic tasks. These tasks may include activities such as performing specific rhythms, improvising, or playing ensemble pieces.

The draft course is rated for appropriateness and consistency by five experts. The results of the study indicate that the average score of the course in the suitability level is between 4.6 and 5.0 points. And the consistency of the course from the evaluation shows that the IOC index is between .80 and 1.0 which is higher than the standard setting of .50. Show that the components of the course are consistent with each other. The results of the assessment of the appropriateness of the lesson plan indicate that the lesson plan is at a very high level of appropriateness, showing an average score between 4.6 and 5.0.

The course evaluation results of experts show that the course can be used not only to improve students' interest in learning Chinese percussion instruments course, improve their Chinese percussion playing performance. After students adopt this method, students' learning initiative and enthusiasm are greatly improved. First, I should think and learn with questions, and actively use learning materials for purposeful independent learning. At the same time, timely feedback and evaluation can ensure that students' problems in the learning process, better understand their academic degree, and provide opportunities to improve their learning efficiency. Instructors to timely collect and feedback information, in the process of classroom teaching questions to focus on the students, through debate or speech, let the students show autonomous learning results, instructors give evaluations and detailed explanations, and students after class as soon as possible after submitting homework grades and comments, students to assess their learning progress. Ensure that students are actively involved in self-assessment, not just being assessed by the teacher. Students may need to develop skills in self-reflection and self-evaluation.

3. Discussion of implementation of playing Chinese percussion instrument course based on task-based learning and team-based learning to improve playing percussion instrument performance

The course was implemented for new students to assess the effectiveness of the course. The study of Chinese percussion instrument courses using task-based and team-based learning teaching can improve students' examination scores and percussion playing performance. Task-based and team-based learning teaching, cultivate students' independent problem inquiry learning ability, enhances learning initiative, and autonomous learning outside the classroom, makes students better increase their learning



interest and improve learning efficiency, helps to understand the Chinese percussion instrument course content, combining boring knowledge and practical life, improve the grades and increase Chinese percussion playing performance. Using the Task-based problem inquiry method, students can independently choose goals and think with questions. Students can deepen their interest in theoretical learning through thinking questions. The teaching method of preparing problems before class, solving doubts in class, and summarizing and reflecting in class can make the boring Chinese percussion instrument course vivid.

In the collation of experimental data, it was found that with the use of the Task-based and team-based teaching methods, students' Chinese percussion playing performance was significantly higher than that of the traditional teaching methods. Thus, this teaching method greatly improved the learning effect of the Chinese percussion playing instrument course. The average scores of the study developed increasingly higher than the pre-test. The effect size of Cohen's d in this study was 1.17, it was considered to be a large effect of learning through Chinese percussion playing instrument course on students' Chinese percussion playing performance. The average scores of the study developed increasingly higher than the pre-test. The effect size of Cohen's d in this study was 1.799, it was a large effect of learning through Chinese percussion playing instrument course on students' Chinese percussion playing performance form. The average scores of the study developed increasingly higher than the pre-test.

According to the problem goals set by the teacher, students can independently study and organize feedback before class, effectively communicate with students and teachers in class, summarize and improve in class, achieve the preset goal of problem-solving, cultivate students' positive physical experience, and greatly improve their learning efficiency. After teachers use the teaching method of task-based and team-based learning, students' Chinese percussion playing performance self-test table will be improved, increasing students' interest in learning, which can be promoted in future teaching, make students fall in love with Chinese percussion instrument courses, form good moral quality, and cultivate college students with all-round development of morality, intelligence.

Recommendations

In this study, the following recommendations are thought to be useful for instructions and for further study.

1) The director or university administrators should give importance to course development promote teachers to have knowledge in designing courses and should budget support for creating the instructional materials. Teachers should receive training in developing instructional materials, and learning management in the classroom including using a variety of instructional activities.

2) Teachers should study the mode of using teaching skills, such as cooperative learning, group discussion, problem-solving, and question teaching, To explain to students how to do the instruction of learning activities before starting.

3) Teachers should encourage students to express their ideas and use social interaction. Make them have teamwork skills, have teamwork skills, be good at communication, and communication responsible for doing activities with others.

4) Task-based and team-based teaching mode is the core of learning reform. Therefore, we should study how to use the TBL to enable students to develop the teaching mode of independent learning effectively, cultivate students' independent learning ability, and improve their civic awareness. This study established a mixed teaching model of task-based and team-based learning teaching methods. But there is still much scientific knowledge to develop.

5) Teachers play an important role in the teaching process. Therefore, teachers should be encouraged to participate in the design of the teaching mode and support teachers to develop the teaching mode of independent learning. Therefore, the development of a mixed teaching mode is focused on the participation of teachers in the design of the teaching mode.

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