



## Effect of Learning Management Using the Orff Approach on Violin Playing Ability of Fourth-Grade Students

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### Abstract

**Background and Aims:** In the past, Chinese music education exhibited characteristics of traditional transmission and indoctrination. Students were often in passive roles during their learning process, with teachers predominantly imparting knowledge and methods, neglecting student involvement in practical activities. This experimental research aimed to 1) compare violin playing ability before and after learning through learning management using the Orff approach and 2) compare violin playing ability after learning management using the Orff approach with the criteria at 70%.

**Methodology:** This study used a cluster sampling method with 30 students as the sample. The research instruments were as follows: 1) Six lesson plans using the Orff approach 2) violin playing ability test, with a reliability of 0.78 3) a violin playing ability assessment form, with a reliability of 0.75. Data were analyzed using the statistical software program. The statistics used for data analysis are the mean, standard deviation, t-test for dependent samples, and t-test for one sample.

**Result:** After using the learning management using the Orff approach: (1) Students' academic achievements were significantly higher than before use, with a statistically significant difference of 0.05; (2) The student's academic achievements are above the 70% standard, and the difference is statistically significant at 0.05.

**Conclusion:** Through learning management using the Orff approach, learning efficiency has been improved and the personalized learning needs of students have been met. To help students improve their performance ability and enhance their learning interest.

**Keywords:** Learning Management Using the Orff Approach; Violin Playing Ability

### Introduction

At a press conference held by the Ministry of Education on April 21, 2022, the newly revised Compulsory Education Curriculum Plan and Curriculum Standards (2022 edition) were released. In the new revision, new adjustments have been made to the art curriculum. Not only has the art course been formally incorporated into the compulsory course of compulsory education, but also the setting, standards, and teaching objectives of the art course have been clarified. The art curriculum of compulsory education includes 5 subjects: music, fine arts, dance, drama (including traditional Chinese opera), film, and television (including digital media art). Dance, drama film, and television have been formally integrated into the compulsory education stage as the "new three subjects", and the art curriculum has been reformed. From grade 1 to Grade 7, music and fine arts are the main line, and dance, drama, film, and television are integrated into the content, and grades 8 to 9



are offered separately. It has implemented the overall framework from grade 1 to Grade 9, and the curriculum concept of "adhering to aesthetic education, attaching importance to artistic experience and highlighting curriculum integration" (Tiffany, 2022),

At present, Chinese music education presents the characteristics of transmission and indoctrination, and students are often in a passive position in learning. More, teachers teach knowledge in one way, while ignoring students 'practical participation, which cannot make students' talents put to good play, which to a certain extent violates the law of children's growth and development. In practical teaching, many teachers blindly pursue the teaching progress, and emphasize the difficulty of teaching, often beyond the students' tolerance and acceptance range in content. Finally, students are afraid of music learning and can not enjoy the beauty of music. Orff's teaching method attaches importance to creation and respects the characteristics of students' inner world, which can make up for the shortcomings of music education in China. Therefore, it is necessary to apply Orff's teaching method to art education and violin education, which can change the educational concept of Chinese educators and play a key role in enriching Chinese art education methods, innovating teaching methods, and improving the teaching environment. (Yunran, 2020)

The Orff approach is an instructional approach that advocates the organic and clever combination of theory and practice. It emphasizes engaging students' various senses and integrating multiple modes of behavior. This method involves teaching activities such as singing, dancing, reading, and speaking to stimulate students' interest in learning, foster their imagination, and highlight their role as active learners. It allows them to gain a comprehensive experience and improve their abilities. The Orff approach not only fully harnesses and integrates various abilities and behaviors of students but also enhances their understanding and perception of music knowledge and violin techniques. It also improves their ability to apply what they have learned. (Ruixue, 2022)

In a word, the use of Orff's teaching method in violin teaching can effectively combine teachers 'teaching with students' learning, thinking, and creation, which is conducive to students having a deeper understanding of the knowledge of violin music theory and achieving a significant improvement of violin level. Orff teaching method is not only a method but also a kind of enlightening teaching concept, the current application of the violin teaching method is not much, the future education is full of creative education, teachers can timely change teaching ideas, avoid violin teaching gradually tend to skills training, guide students to innovation, efforts to improve their music quality. (Yunran, 2020)

### Research questions

1. How is the violin playing ability before and after learning through learning management using the Orff approach?
2. How is the violin playing ability compared with the determined criteria at 70%?

### Research objectives

1. To compare violin playing ability before and after learning through learning management using the Orff approach.
2. To compare violin playing ability after learning management using the Orff approach with the criteria at 70%.



## Literature Review

Orff's teaching method created by the famous musician of Federal Germany Karl Orff, is an independent music teaching system. Subverting the traditional ideas and methods, gives music new vitality, to make music teaching more humanized and artistic.

The practical application of the Orff music teaching method in the music education of secondary school: the integration of language into music teaching, the integration of dance movements into music teaching, and the integration of Musical Instruments into the secondary aspect of music education. Orff's music teaching method is not only a comprehensive design based on the current social development and needs but also a design based on full respect and consideration of the actual situation of music students. In the practical application, it is necessary to fully combine the learning of the basic knowledge of music theory and the improvement of professional practice ability to do a good job in the relevant arrangement.

Wendi (2016) researched "The application of Orff music teaching method in violin group teaching". Based on an in-depth understanding and analysis of Orff's music education thoughts, this paper analyzes the current situation of violin education in China, integrates Orff's teaching method into violin teaching, and provides a new way of thinking for violin educators through the teaching form of collective lessons. Make the children's violin learning an effective way to improve aesthetic cultivation and awareness, let the children enjoy the music in the happy study of life, and the aesthetic education into practice.

Southcott & Wei (2012) researched "It all begins with the beat of a drum': Early Australian encounters with Orff Schulwerk". Holmes (1966) asserted that the dominant characteristic of the Orff approach is the learner's freedom to choose and create within the domain of pulse, meter, phrase, structure, or musical form. The learner's music vocabulary is built through explorations of different instruments, sounds, and the way the sounds are produced. This freedom extended to the teacher who was expected to create an individual curriculum when adapting and implementing Orff's pedagogical ideas (Goodkin, 2001). The teacher's imagination determines the success of music learning and engagement through Early Australian encounters with Orff Schulwerk<sup>22</sup> 2012, No. 2 Orff Schulwerk (Frank, 1964).

The above analysis shows that Chinese and Western scholars have conducted extensive research and exploration of the concept, theory, characteristics, composition, and teaching application of the Orff teaching method. These studies have laid a solid foundation for the future research, development, and application of the Orff teaching method.

## Research Conceptual Framework

Based on the content of this research, the independent variable is learning management using the Orff approach, and the dependent variable is violin playing ability.

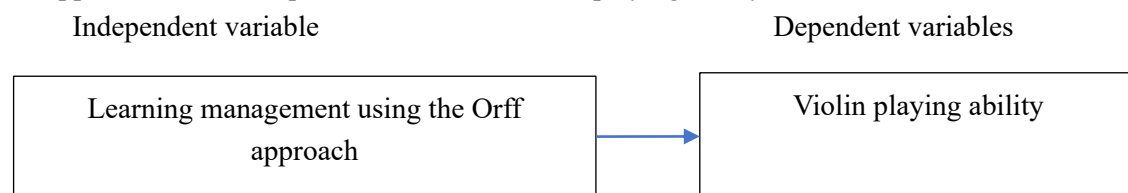


Figure 1 Research Conceptual Framework

## Methodology

**1. Population and sample:** The population of this study is 120 students (4 classes), which was



derived from the cluster random sampling method. **The sample of** this study included a sample of 30 students (1 class) in grade 4 of Shuangxi Primary School in Taiyuan, Shanxi Province, the People's Republic of China.

**2. Research instruments:** Research instruments were the tools for collecting data. The research instruments which were used in this study were:

2.1 Research instruments were the tools for researching to collect data. The research instruments which were used in this study were:

2.1.1 Instruments for experiment: Lesson plan: There are 6 lesson plans for violin playing ability, each allocated 2 hours, for a total of 12 hours

2.1.2 Instruments for collecting data: (1) The violin playing ability test. And (2) Rubric score for the rhythm, technique, and expression of violin playing ability

2.1.3 Construction and examining the quality of research instruments: In this study, the Orff teaching method was used to teach learning management for 6 class hours, 2 hours each time, a total of 12 hours. The following table is the teaching schedule of this experimental study.

#### 2.2 Instruments for collecting data

An instrument for measuring: Violin playing ability test and Violin ability assessment form.

2.2.1 Violin playing ability test: The test consists of 40 items of multiple-choice questions, each of which has four alternatives with one correct answer. The test items consisted of four types of cognitive domains: 1) remember, 2) understand, 3) apply, and 4) analyze; The index of Item Objective Congruence (IOC) value of 40 items in the test paper was 0.80 at the lowest and 1.00 at the highest. The result of analyzing the IOC value showed that all test items were appropriate and could be used in the test. The test paper difficulty (p) was between 0.70-0.77, and item discriminability (r) should range from 0.56-0.88 and more than 0.20. The test paper reliability is 0.78 and more than 0.7 (Richardson & Kuder, 1939: 681-687).

2.2.2 Violin ability assessment form: Distribute the violin performance assessment criteria to 5 experts for content validity check and make suggestions on the type of questions, test accuracy, and wording. The project assessed the quality of the test using the Index of Item Objective Congruence (IOC) from the standard violin performance Assessment form. If the Index of Item Objective Congruence (IOC) of each item of the test is higher than 0.5 that means it can be used in the test. The result of analyzing the IOC index showed that all test items were appropriate and could be used in the test. Revising the Chinese writing ability assessment form according to the experts' comments and suggestions. Analyze each item of each student's essay to find the reliability of the test, calculated using Cronbach's Alpha coefficient formula, which should be greater than 0.70 (Cronbach, 1951).

Take the violin playing ability assessment form with a try-out group of 30 students, then calculate the reliability of Cronbach's Alpha coefficient formula, which should be greater than 0.70 (Cronbach, 1951).

The results of the analysis of the reliability were 0.78 which means that there is a high level of reliability and the instrument can be used to collect data.

#### 3. Data collection

The data collection process is as follows:

1. This sample adopts the Orff approach to learning management.
2. The sample is taught according to 6 lesson plans (2 hours per lesson). The Orff approach of learning management teaches violin playing ability



3. After the completion of the instruction, the sample was post-tested using the same tools as the pre-test, and the students' abilities were graded.

**4. Data Analysis:** According to the purpose of the study, statistical procedures were used to analyze the data

1) Compare the violin playing ability before and after learning Orff's approach to learning management by using a t-test for the dependent sample

2) Compare the violin playing ability after Orff learning management with the 70% criterion by using a t-test for one sample

## Results

The results were presented according to the research objectives as follows:

The result of comparing the mean score of students' violin playing ability before and after learning through Learning management using the Orff approach.

The below table shows descriptive statistics and t-tests for dependent samples as analyzed by the statistical package program. This table aimed to answer the research objective about whether Learning management using the Orff approach method was able to enhance violin playing ability.

**Table 1** The results of different scores of violin playing ability of students before and after learning using the Orff teaching method

violin playing ability	n	Full score	Pretest scores		Posttest scores		t	p
			M	SD	M	SD		
Music Theory	30	40	22.57	3.98	29.90	5.63	6.580*	.000
Bowstring skills	30	9	4.13	1.25	6.97	1.00	3.654*	.000
Rhythm control	30	9	4.17	1.26	7.00	1.34	2.863*	.000
Performance expressiveness	30	9	3.77	1.38	7.33	0.84	6.704*	.000

\* $p < 0.05$

It aimed to examine, the mean score before and after the Orff teaching method was used to test the violin playing ability, to improve the students' violin playing ability.

As presented in Table 1, we can state the following:

The mean score of the pretest of music theory in students' violin playing ability was ( $M=22.57$ ,  $SD=3.98$ ) and the post-test of music theory in students' violin playing ability was ( $M=29.90$ ,  $SD=5.63$ ). The result of this table showed that after learning through using learning management using the Orff approach was higher than before learning with statistical significance at the .05 level. ( $t=6.58$ ,  $p < 0.05$ ).

The mean score of the pretest of bowstring skills in students' violin playing ability was ( $M=4.13$ ,  $SD=1.25$ ) and the post-test of bowstring skills in students' violin playing ability was ( $M=6.97$ ,  $SD=1.00$ ). The result of this table showed that after learning through using learning management using the Orff approach was higher than before learning with statistical significance at the .05 level. ( $t=12.30$ ,  $p < .05$ ).

The mean score of the pretest of rhythm control in students' violin playing ability was ( $M=4.17$ ,  $SD=1.26$ ) and the post-test of rhythm control in students' violin playing ability was ( $M=7.00$ ,  $SD=1.34$ ). The result of this table showed that after learning through using learning management using the Orff approach was higher than before learning with statistical significance at .05 level. ( $t=8.71$ ,  $p < .05$ ).





The mean score of the pretest of performance expressiveness in students' violin playing ability was ( $M=3.77$ ,  $SD=1.38$ ) and the post-test of performance expressiveness in students' performance expressiveness was ( $M=7.33$ ,  $SD=0.84$ ). The result of this table showed that after learning through using learning management using the Orff approach was higher than before learning with statistical significance at the .05 level. ( $t=11.26$ ,  $p < .05$ ).

Thus, students' violin playing ability including music theory, bowstring skills, rhythm control, and performance expressiveness, each ability the average scores of the study developed increasingly higher than pretest, with statistical significance at the 0.05 level.

**Table 2** The result of comparing the mean score of compare violin playing ability of students after learning through Learning management using the Orff approach with the determined criterion set at 70 percent of full scores

Violin playing ability	n	Full score	Criteria score 70%	Posttest scores		Compared with 70%	
				M	SD	t	p
Music Theory	30	40	28	29.90	5.63	2.126*	.000
Bowstring skills	30	9	6.30	6.97	1.00	3.654*	.000
Rhythm control	30	9	6.30	7.00	1.34	2.863*	.000
Performance expressiveness	30	9	6.30	7.33	0.84	6.704*	.000

\* $p < 0.05$

As presented in Table 6, the mean score of the post-test of music theory in students' violin playing ability passed the Orff approach ( $M=29.90$ ) with a perfect score of 40 and a standard deviation of ( $SD=5.63$ ), which was higher than 70% of the criteria with statistical significance at the .05 level ( $t=2.13$ ,  $p < .05$ ).

The mean score of the post-test of bowstring skills in students' violin playing ability passed the Orff approach ( $M=6.97$ ) with a perfect score of 9 and a standard deviation of ( $SD=1.00$ ), which was higher than 70% of the criteria with statistical significance at the .05 level ( $t=3.65$ ,  $p < .05$ ).

The mean score of the post-test of rhythm control in students' violin playing ability passed the Orff approach ( $M=7.00$ ) with a perfect score of 9 and a standard deviation of ( $SD=1.34$ ), which was higher than 70% of the criteria with statistical significance at the .05 level ( $t=2.86$ ,  $p < .05$ ).

The mean score of the post-test of performance expressiveness in students' violin playing ability passed the Orff approach ( $M=7.33$ ) with a perfect score of 9 and a standard deviation of ( $SD=0.84$ ), which was higher than 70% of the criteria with statistical significance at the .05 level ( $t=6.70$ ,  $p < .05$ ).

It can be seen that students who accept the Orff approach have a score of more than 70% in violin playing ability.

## Discussion

This study shows that the approach is an effective teaching method to improve violin playing ability.

1. As mentioned above, the results showed that the student's ability to play the violin using the Orff approach was better than before learning. This is because the Orff method is based on the instructions for each step. The five steps of Orff's approach are: 1) preparation: the teacher introduces new concepts, topics, or skills. 2) presentation: teachers introduce students to required skills, knowledge,



or concepts through demonstration, demonstration, or explanation. 3) experience: students deepen their understanding of what they are learning through hands-on participation, hands-on manipulation, or physical expression. 4) summary: students review and summarize what they have learned in the previous steps and 5) application: students to apply the knowledge or skills they have learned to a practical situation. (Dana et al., 2002)

2. The reasons why the average score is 70% higher than the established criteria for the previous violin performance ability test score when using the Orff method for learning management are: 1) Integrated learning experience: The Orff approach focuses on holistic learning, learning music through a variety of ways, including body movement, sound, and instrument playing. 2) Emotional involvement and engagement: The Orff approach emphasizes students' emotional involvement and engagement, stimulating students' interest and enthusiasm through experiential musical activities. 3) Group cooperation and interaction: Orff pedagogy usually uses a group approach to music, encouraging students to play together, sing together, and compose collaboratively 4) Creative expression: The Orff approach encourages students to engage in creative musical expression through activities such as improvisation, arrangement, and composition. (Schultz, 2004)

## Conclusion

Through comparative analysis of the students using Learning management using the Orff approach pretest and post-test, after the intervention of Learning management using the Orff approach:

1. The music theory test scores of the students after using learning management using the Orff approach were higher than before with statistical significance at the .05 level ( $t=6.58, p<.05$ ).

2. After adopting Orff approach, the score of music theory was higher than 70% standard (0.05), which was statistically significant ( $t=2.13, p<.05$ ). The score of bowstring skills was higher than 70% standard, which was statistically significance at .05 level ( $t=3.65, p<.05$ ). The score of rhythm control was higher than 70% standard, which was statistically significance at .05 level ( $t=2.86, p<.05$ ). The score of performance expressiveness was higher than 70% standard, which was statistically significance at .05 level ( $t=6.70, p<.05$ ).

Therefore, learning management using the Orff approach was feasible in advanced violin teaching, which helped to improve students' violin playing ability. The experimental results verified the research hypothesis.

The classroom practice of Learning management using the Orff approach improves students' independent learning ability and meets their individual learning needs. It helps to improve students' violin playing ability.

## Recommendation

### Recommendation for implication

1. Teachers need to strengthen the knowledge reserve when teaching PPT courseware, teachers should be able to select and make excellent courseware, text and pictures must be concise, vivid, and humorous language, to attract students' attention, courseware content should be concentrated and structured, conducive to students' systematic learning.

2. In teaching, Orff's approach takes students as the main body, and teachers as the leading, and completes the teaching organization. Although the teacher is the guide, the teacher cannot let the student go, because the



teacher guides the student to learn actively, so the student becomes the subject of learning.

3. Teachers should also guide students to actively learn the content of the lesson, and always maintain supervision and guidance so that students will not deviate from the topic during the learning process.

## 2. Recommendation for further research

With the rise of quality education, Learning management using the Orff approach has been applied more and more widely in the field of music education. The future has research prospects in the following aspects:

1. Assessment of learning effectiveness: Systematic assessment and comparative study on the learning effectiveness of Orff approach in violin education. Through quantitative and qualitative methods, these studies can explore the improvement of students' musical skills, music understanding, expression ability, and other aspects under the Orff approach, as well as the advantages and disadvantages compared with traditional teaching methods.

2. Teaching mode and practice research: In-depth discussion of the specific teaching mode and practice strategy of the Orff approach in violin education. The research can focus on how teachers effectively apply the Orff approach to violin teaching, including the practical experience in curriculum design, teaching resource preparation, student motivation, and participation, and explore the influence of different teaching modes on students' learning results.

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