How to Improve Choral Teaching Efficiency? An Experimental Research of Structured Teaching Model in Primary Choral Education

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Abstract

In recent years, various choral exhibition festivals and choral competitions have emerged, which is an effective way to promote the prosperity of choral teaching, but under the performance-oriented evaluation method, it will lead to too utilitarian choral teaching and weaken the educational significance of choral teaching itself. In choral education within primary schools, a successful stage performance is often considered the standard to assess the effectiveness of choral teaching. However, this outcome-oriented evaluation method may lead teachers to gradually prioritize performance as the ultimate goal of choral education, while disregarding the true improvement of students' abilities and characters. Consequently, teachers may excessively emphasize repetitive and mechanical rehearsals in order to achieve the best performance, which creates a paradox between performance and education. Performance-oriented choral teaching has various drawbacks, which speaks to the necessity for a teaching approach that reconciles this paradox and promotes the educational value of choral teaching. In this article, a structured choral teaching model was developed, we conducted an experimental study with two classes of students (N=96) from a school in central China to verify the nurturing effectiveness of structured instruction. The results of the study showed that structured teaching model takes a student-centered approach with the goal of enhancing student ability and character development, thereby balancing the relationship between performance and education.

Keywords: Choral Teaching, Students Development, Structured Teaching Model, Music Education

1. Introduction

The famous music educator Kodály once said that a small-town singing teacher may be more important than the conductor of a large opera house. Because a poor conductor may just suffer a failure (even a good conductor may suffer a failure), but an incompetent teacher may kill the love of music in 30 classes in 30 years, which highlights the importance of singing in school music education.

As one of the most common forms of musical performance, choral singing has been widely present in the school music education system. However, the paradox of performance and teaching in choral teaching has always existed, as an excellent performance is often seen as the most effective and direct way to assess the effectiveness of choral teaching. This has led to choral teaching becoming increasingly guided by utilitarianism, which deviates from the nurturing role of foundational music education: students say that "too much time spent on behavioral drilling, correct sitting and standing and complain that in the allotted hour slot there is little time left for singing (Pietsch, H. M. 2002). The purpose of choral teaching is not only to realize a wonderful artistic show, but also to improve students' pitch ability, scientific vocal ability, aesthetic ability and cooperation ability, etc. (Dumont, F. 1984). However, the two goals of being performance-oriented and being oriented towards improving students' musical literacy seem to be parallel, for example, it has been pointed out that an orientation toward performance might lead a teacher to deemphasize music reading skills in favor of rote teaching for the sake of expediency even when the comprehension of notation is clearly within the students' potential grasp (Freer, P. K. 2011).

The purpose of this paper is not to provide an in-depth analysis and exploration of why the paradox exists, or to critique performance as a way to test the effectiveness of choral teaching, but rather to reconcile the tension between performance and nurturing and to enhance the effectiveness of choral teaching.

2. Literature Review

Undoubtedly, the overarching goal of music education extends beyond the mere cultivation of artists, with an emphasis on holistic development in individuals (Tawnya D. Smith, 2021; D'Olimpio, L., 2022). Choral education, as an integral component of music education, has also demonstrated its rich educational value. Research has shown that choral instruction can foster students' friendships (Ferrer, R., Puiggalí, J., & Tesouro, M., 2018), promote cooperation (Varvarigou, M., 2016), enhance psychological well-being and overall health (Clift et al., 2010; Mellor, 2013), and address mental health issues (Dingle, Brander, Ballantyne, & Baker, 2013).

Furthermore, despite choral education in primary and secondary schools being primarily offered through extracurricular clubs and rehearsals, some scholars argue for its integration into the formal education system. For instance, Fuelberth, R., and Todd, C. (2017) suggest that choral programs should expand beyond traditional curricular and presentation models, aligning with national music standards. In China, according to the National Compulsory Education Curriculum Standards, music education during the compulsory education stage (grades 1-9) encompasses four major categories of artistic practice: vocal performance, instrumental performance, comprehensive artistic performance, and music score reading. Consequently, choral instruction serves as an integral part of formal music education.

In addition to exploring the significance and impact of choral education, researchers have also delved into the instructional processes within choral settings. Some studies classify music learning into internal and external representations, with external representations focusing on symbolic or notational aspects (Corbalán, M., Pérez-Echeverría, M. P., Pozo, J. I., & Casas-Mas, A., 2019), and internal representations centering on referential and semantic dimensions (Casas & Pozo, 2008). In the context of choral education, external representations encompass physical gestures and movements that contribute to the learning of musical works, while internal representations primarily involve auditory and proprioceptive elements that reflect students' abilities and musical literacy. However, the acquisition of these internal representations often comes at the expense of students' overall musical development (Hicks, 1980; Phillips, 2003). This is partially due to a tendency to neglect the educational implications of rehearsal activities, an occasional overemphasis on competition, and a failure to recognize that choral music education takes place within schools, where programs thrive or decline based on their educational implications (Hylton, J. 1997).

In addressing the aforementioned paradox, some scholars have made initial attempts and conducted research (Wright, R. 1996; Freer, P. K. 2011). For example, Wright, R. advocates a holistic approach that offers an alternative to the more traditional separatist curriculum approach, which is inspiring but leaves room for further research. Meanwhile, Freer, P. K. argues that resolution of the paradox can be achieved by viewing it as a "both-and" duality, where both propositions are true, and balance is key.

In summary, current research on choral education has evolved from theoretical aspects such as its purpose, significance, and effects to the micro-level of teaching and practice. While some scholars have recognized the need to enhance the educative aspects of choral instruction and have proposed recommendations, there is still limited research focused on improving the educative qualities of choral education through new experiments and explorations, which provides a direction for this study.

3. Methodology

This study adopted a mixed research methodology with the aim of verifying whether structured classroom choral teaching can effectively enhance the nurturing effectiveness of choral teaching and whether it can play a role in reconciling the paradox of performance-nurturing. We conducted a 2-year follow-up and experimental study in an elementary school in central China, where the subjects were divided into an experimental group and a control group of third-grade students from the same elementary school. The experimental group used structured choral teaching methods, while the control group used traditional choral teaching methods. The effectiveness of structured teaching was verified by analyzing and comparing the differences in the improvement of choral ability literacy between the two groups of students.

3.1 Research Design

One of the centers for verifying the effectiveness of choral teaching lies in whether choral teaching can actually improve students' choral ability and music literacy. Therefore, based on Edward Gordon's theory of music learning sequence and Émile Jaques-Dalcroze theory of choral teaching, we compiled a questionnaire to assess students' choral ability, which includes four major assessment sections: listening, reading, writing and singing, and utilizes a combination of paper-and-pencil tests and performance evaluation (Fig. 1).
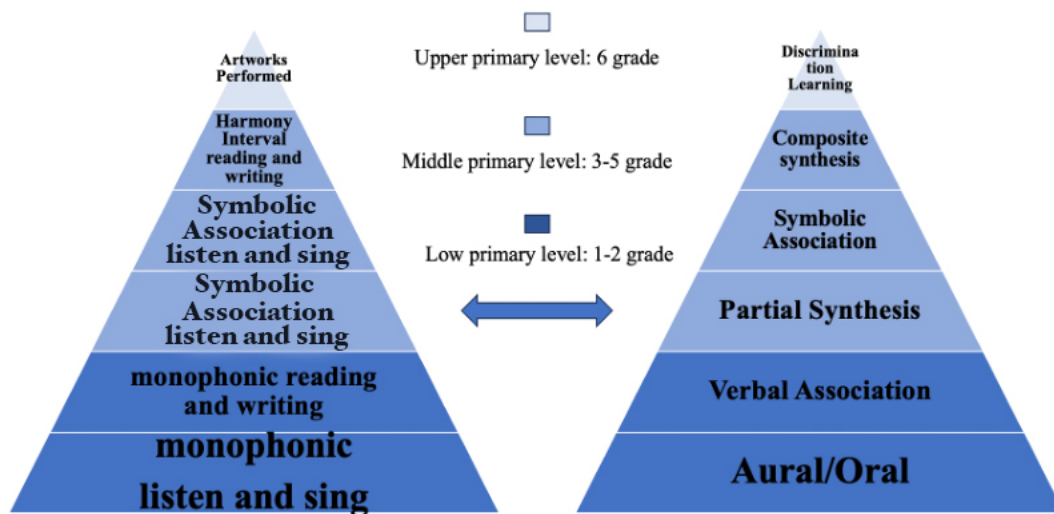
Fig. 1 The research design & procedures

Fig.1 categorizes paper-pencil tests and performance assessments into three distinct stages based on grade levels: Low primary level (1-2 grade)/Middle primary level (3-5 grade)/Upper primary level (6 grade). Different plans are laid out for the aspects to be examined at each stage. At the Low primary level, we focus on the four basic aspects of monophonic listening, reading, writing, and singing. As students advance to the Middle primary level, with the development of their intelligence and the initial establishment of their aesthetic framework, we lean towards nurturing their capabilities in symbolic listening, reading, writing, and singing. In the Upper primary level, since students have essentially grasped the basic monophonic and symbolic listening, reading, writing, and singing abilities, we employ performance assessments to evaluate students' learning conditions. Figure 1 illustrates the logical sequence of questionnaire development and the sequence of choral ability constructs. The difficulty of the assessments was adjusted as time progressed. In order to enhance the scientific validity and rationality of the study, the experimental group and the control group controlled the variables as much as possible: the choral ability of the students in the experimental group and the control group were front-ended and the choral teacher was the same one before the implementation of the structured teaching.

3.2 Participants

Participants in this study included students from two classes in an elementary school in central China. In order to enhance the feasibility and efficiency of the research conducted, this study abandoned the principle of random assignment and divided the participants into experimental and control groups based on their original classes. The two groups of students were slightly different in terms of gender percentage, age, and musical specialties, but remained generally the same, with the following specific data:

Participants' Gender

Gender	n	%	Cumulative Percent
Male	25	52%	52%
Female	23	48%	100%
Total	48	100%	

Table1.Intervention Group

Gender	n	%	Cumulative Percent
Male	26	54%	54%
Female	22	46%	100%
Total	48	100%	

Table2.Control Group

Participants' Age

Age	n	%	Cumulative Percent
5	3	6.3%	6.3%
6	23	47.9%	54.2%
7	18	37.5%	91.7%
8	4	8.3%	100%
Total	48	100%	

Table 3. Intervention Group

Age	n	%	Cumulative Percent
5	4	8.3%	8.3%
6	25	52.1%	60.4%
7	15	31.3%	91.7%
8	4	8.3%	100%
Total	48	100%	

Table 4. Control Group

Participants' Musical Specialty

Learning music specialty experience	n	%	Cumulative Percent
Vocal	3	6.3%	6.3%
Piano	3	6.3%	12.6%
Other western instruments	4	8.3%	20.9%
Chinese folk musical instrument	6	12.5%	33.4%
Without any experience	32	66.6%	100%
Total	48	100%	

Table 5. Intervention Group

Learning music specialty experience	n	%	Cumulative Percent
Vocal	4	8.3%	8.3%
Piano	3	6.3%	14.6%
Other western instruments	5	10.4%	25.0%
Chinese folk musical instrument	6	12.5%	37.5%
Without any experience	30	62.5%	100%
Total	48	100%	

Table 6. Control Group

In addition, in order to improve the science and validation, this research conducted a pre-experimental test towards two groups before the beginning of structured choral teaching, which shows that the choral literacy of the two groups are converging, and thus verified the varieties in this research is scientifically controlled.

3.3 Data Collection& Analysis

This study adopts a mixed research method, i.e., a combination of quantitative and qualitative methods to collect data. On the one hand, as mentioned earlier, we developed the "Measurement of Students' Choral Ability" test questionnaire and quantified the students' choral ability level through scoring to validate the effectiveness of the structured choral teaching in the classroom; on the other hand, we collected qualitative data through interviews with music teachers and students to explore the students' and teachers' feelings and experiences of the structured teaching.

Regarding quantitative research, this study conducted three assessments of students' choral ability during the two years of structured teaching, respectively before structured teaching, one year after structured teaching and two years after structured teaching. The significance test between the experimental group and the control group was used to verify whether structured teaching could improve students' choral ability and music literacy. The experimental data of the three measurements are as follows:

Mann-Whitney U Test Abstract

Total N	96
Mann-Whitney U	1265.500
Wilcoxon W	2441.500
Test Statistic	1265.500
Standard Error	136.279
Standardized Test Statistic	.833
Asymptotic Significance (Two-Tailed Test)	.405

Table.7 The First Test Data

Mann-Whitney U Test Abstract

Total N	96
Mann-Whitney U	1828.500
Wilcoxon W	3004.000
Test Statistic	1828.000
Standard Error	136.354
Standardized Test Statistic	4.958
Asymptotic Significance (Two-Tailed Test)	.000

Table 8. The Second Test Data

Mann-Whitney U Test Abstract

Total N	96
Mann-Whitney U	1828.500
Wilcoxon W	3004.000
Test Statistic	1828.000
Standard Error	136.354
Standardized Test Statistic	4.958
Asymptotic Significance (Two-Tailed Test)	.000

Table 9. The Third Test Data

Regarding the qualitative study, we conducted several interviews with teachers and students in the two classes through formal and informal interviews in both open-ended and semi-structured formats. During the interviews, a number of students (especially those who had a relatively weak foundation in music before) said that by being in a structured classroom, they could gradually participate and keep up with the teacher's progress; the music teacher who implemented structured teaching also said that structured teaching enhanced the participation in classroom teaching and provided a new solution for her teaching practice.

4. Discussion& Conclusion

This study proposes a structured teaching model that emphasizes treating choral teaching at the elementary school level as a whole, focusing on the sequential, logical, and correlative nature of the course content, and exploring whether structured teaching can enhance the effectiveness and nurturing nature of choral teaching. Through our two-year follow-up survey and experimental study, combining qualitative and quantitative research methods, we have come to a conclusion about the nurturing effectiveness of classroom choral structured teaching.

4.1 Effectively Enhance Students' Choral Ability and Music Literacy

There was no significant difference between the experimental group and the control group in terms of choral ability at the first measurement (P>0.05), but as the structured teaching progressed, the gap in choral ability literacy between the two groups of students was gradually shown. After one year of the implementation of structured teaching, there was a

significant difference between the performance of the experimental group and the control group in terms of choral ability, and the significant difference still existed after two years of the implementation of structured teaching. This proves that compared with traditional choral teaching, structured choral teaching has a higher parenting effect, and has a significant role in improving students' choral ability and music literacy.

The traditional choral teaching method pays more attention to the teaching progress and the completion of teaching tasks than to whether the students' ability is improved, and relatively neglects the cultivation of students' choral ability and musical literacy. Structured teaching is a step-by-step teaching design oriented to the improvement of students' choral ability and literacy, with the ultimate goal of realizing the construction of students' ability and the development of their literacy.

4.2 Enhance Students' Participation and Promote the Fairness of Choral Teaching

In traditional choral teaching, due to the high demand for students' musical literacy, choral teaching becomes a one-man show for a small number of students, while more students with weaker musical foundation often find it difficult to integrate and choose to remain silent in class. In the process of implementing structured teaching, through interviews and exchanges with students in the experimental group (especially those with relatively poor music foundation), it was found that many students said "they no longer find choral lessons boring and difficult, and no longer feel that it is noisy when different voices sing together but begin to gradually find the beauty of harmony and be able to integrate into it! ".

Since one of the core elements of structured teaching is to follow the sequence and relevance of teaching, emphasizing the gradual progress of the teaching process, this mode of teaching is more suitable for students with poor or even no foundation than the traditional choral teaching mode, and provides all students with the opportunity to cultivate their interests and improve their abilities. To a certain extent, structured teaching breaks the barrier of "elite education" of traditional choral teaching, so that all students can feel the charm of choral singing and realizes the fairness of music education in the true sense.

5. Suggestion & Limitation

This study explores how to enhance the effectiveness and nurturing of choral teaching, creates a structured choral teaching model based on sequentiality, and proves the reliability and validity through the experimental research method. What does the implementation of structured teaching tell us about choral teaching? Through this study, we will make appropriate recommendations for choral teaching as well as basic music education with a view to improving the quality of teaching and learning activities.

5.1 Make More Attempts to Reconcile Paradoxes

The paradox of performing or nurturing exists not only in choral singing, but also in music education between utilitarianism and non-utilitarianism (find out where). On the one hand, music education is to cultivate students' aesthetic ability and develop their interests, on the other hand, music education, due to the pressure of exhibition and social demand, is often utilitarianized into performances and competitions, and becomes a vanity field for students to prove themselves. While the visualized results of music education are certainly an important factor in proving its success, what is more crucial is the nurturing values that are hidden

behind the performance, such as whether the students have truly gained the enhancement of their aesthetic ability, whether they have developed their interest in music, and whether they have improved their musical literacy. Mapping from the small scope of choral teaching to the large scope of music education, we need to pay attention to this seemingly antagonistic but actually parallel relationship, and always make clear the non-utilitarian nature of music education, and at the same time make performance evaluation such as performances and competitions a means to promote the development of choral singing and music education, rather than becoming the ultimate goal of choral singing or music teaching.

The structured teaching model created in this study is, in a sense, an attempt to balance the paradox of performance and nurturing. With the development of students' abilities as the core goal, this study creates a step-by-step teaching content and methodology that, on the one hand, improves students' choral ability and music literacy, and ensures the nurturing nature of choral teaching, and on the other hand, makes performances and expressions more natural because of the practical improvement of students' choral ability. The results of this study are intended to inform music educators of the possibility of paradoxical fit, so that music education can return to its non-utilitarian nature.

5.2 Promoting Equity in Music Education

One of the key indicators of equity in education is the participation of all students in teaching and learning activities. Basic music education is open to all students, but music, especially choral singing, has a certain threshold, which requires students to have higher requirements for pitch, harmonic syntax and scientific vocal methods, etc. This means that in choral teaching, some of the students who are weak in music literacy cannot fully participate in and integrate into the class. In our previous teaching experience, we found that many students failed to establish a solid inner hearing and stable pitch, so they always failed to find the key or were disturbed by other voices in the chorus, so they finally chose to be silent or easily distracted and lost their interest in chorus. This reflects from the side that traditional choral teaching still belongs to elite education to some extent, more suitable for some special or superior students with higher music literacy, and also reflects the unfairness of education.

Whether in choral teaching or conventional music curriculum teaching, ensuring that all students have a good experience should be the teacher's main goal and code of conduct. In structured teaching, we are oriented to the construction of students' abilities, focusing on the development of all students' abilities and the enhancement of their literacy, creating teaching contents from simple to complex, ensuring higher student participation and promoting educational equity to a certain extent. Many students reported feeling that choral lessons became simpler and more interesting, that the different voices that appeared around them in the past were no longer noise, that they could gradually find their pitches from the harmonies, and that they felt the charm of polyphonic choral singing. Our study shows music educators in general an attempt to promote equity in choral teaching, to make choral teaching more suitable for all students, and to make the appeal of polyphony truly belong to everyone.

The elitist form of music education is not only found in choral teaching, but also in the regular curriculum. Instead of focusing only on a few students with musical specialties or talents, we should focus on each and every student, on the growth of all students, so that music education truly belongs to everyone.

5.3 Limitations

The limitations of this study are mainly reflected in the case-by-case nature of the research sample. Due to the limitations of time, energy and ability, we only conducted a case-based practical study in one elementary school in central China. Although this 2-year experimental study confirmed the effectiveness and feasibility of structured teaching, the sample was too small to prove whether structured teaching is suitable for the rest of schools and the rest of the region, i.e., its universality has yet to be tested. In any case, this study has made a forward-looking and exploratory attempt to improve the effectiveness of choral teaching in nurturing people, and we look forward to more studies focusing on the field of choral teaching in the future, and to conduct more in-depth and referable studies.

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