



Practical Problems and Strategies of Music Course Project-Based Learning in Compulsory Education

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Abstract

Under teacher guidance, students embark on independent projects, spanning information collection, design, implementation, and final evaluation. This process cultivates a comprehensive understanding of project dynamics and requirements at each stage, which is known as project-based learning (PBL). PBL is characterized by its interdisciplinary integration, creating a situational and cooperative teaching atmosphere. This paper explores the transformative nature of PBL as a constructive teaching methodology, emphasizing its application in compulsory education. In the context of compulsory education, a case study delves into the implementation of PBL within the music curriculum, where this focused approach aims to enable students to appreciate the beauty of music through active engagement in projects. This paper underscores the contributions of PBL in reconstructing the educational landscape, introducing innovative teaching methods, and fostering real-world application of knowledge. Despite being in its infancy in China, the study asserts that PBL is rapidly becoming the trend of standard teaching approach in compulsory education. In conclusion, this research advocates for the integration of PBL to bridge the gap between theoretical knowledge and practical skills, showcasing its potential to redefine the educational paradigm in the compulsory education stage.

Keywords: *Project-based learning Compulsory Education Music Curriculum Practice*

1. Introduction

In China, teachers rather than the students are still the center of music classes (Ji, 2011). This results in Chinese students rarely reacting in class. They usually silently listen, and carefully complete all in-class and extra-curricular assignments (Economics lecture quoted in Ballard, 1991, p. 2). This form of class cannot well cultivate students' perception and creation of music. As a result, the need for a dynamic music curriculum in school is evident, as seen in an ongoing necessity to foster and promote students' creativity (Mamedov, 2022).

In recent years, some regions and schools in China have begun to explore PBL as a teaching method (Zhang, 2019; Song, 2019). By embarking on PBL, students are encouraged to solve problems, enhancing their motivation and creativity as they become the focal point of the learning process (student-centered). However, in reality, the designed project, not in accordance with this fact, is simply based on the same level and curriculum content (Zhao, 2015). One of the reasons why teachers lack knowledge in implementing PBL in China is that teachers' interdisciplinary knowledge gradually fades or lags behind because of years of engaging in teaching one or more specific courses (Gong & Ding, 2007).

Therefore, based on the current research situation in China, this paper explores whether PBL can be developed upon the current educational background in China and whether PBL can be piloted as a club course to lay the foundation for subsequent regular courses. As well, this paper further studies the practical problems of PBL in China's compulsory education stage, and proposes reasonable implementation measures based on the problems for future reference.

2. Literature review



Many countries are vigorously promoting student-centered, constructivist-oriented curriculum reform (Empson & Junk, 2004; Isikoglu et al., 2009; Rich, 2021), with China being no exception (China Ministry of Education, 2022; Wang, 2011). PBL provides an excellent path to develop and practice students' thinking skills (Dostál, 2015), whose learning involves presenting complex problems to students, allowing them to design problem-solving steps, offering opportunities to apply their skills, fostering collaborative work, and culminating in students presenting their final product (Hawari & Noor, 2020; Kholis & Aziz, 2020; Almazroui, 2023). Therefore, it is feasible for PBL to be used as a learning method for curriculum reform. Currently, regions such as Shanghai and Beijing, the first-tier cities in China, are pioneering reform initiatives featuring PBL (He & Qi, 2022).

According to previous research, music teachers usually possess a creative character, the negative side of which may be the reluctance to make efforts to study theoretical disciplines for a long time (Vass & Deszpot, 2017; Sydykovaet et al., 2018; Okay, 2012). Meanwhile, some research has shown that there exists a potential gap between PBL understood by teachers and that defined in the documents (Tamim & Grant, 2013). If PBL is not implemented well by teachers, which implies a low level of teaching commitment, then it is of little help to the students and may even have a negative impact on their academic performance (Capraro et al., 2016; Erdogan et al., 2016; Han et al., 2015; Markula & Aksela, 2022). Moreover, the difficulty in carrying out PBL is also related to students, the limited length of the courses, the provision of guidance in the materials, and aspects that come from the students themselves (Saputra, 2023).

3. Research method

This paper used a qualitative research method in the form of online interviews and semi-structured interviews. The interview was designed based on the research questions and purposes. Through interviews, the researcher understood the current situation and existing problems of China's compulsory education, as well as the gap of the learning model of PBL in China's compulsory education. The researcher could also share the outcomes of the study with the participant in the event who tended to provide further comments.

3.1 Reasons for taking this approach

Rubin & Rubin (1995) pointed out that the advantage of interviewing is that it empowers not only the interviewer but also the interviewee with a certain degree of freedom to jointly explore the central issues of the research. This method enables flexible and targeted data collection.

For this paper, the researcher could obtain more reliable research information based on the answers of serving teachers. Conducting online interviews reduces the time and energy costs of the researcher and the interviewee to a certain extent, but does not affect the process of interaction and mutual influence between the researcher and participants. Particularly, when the interviewee does not understand the researcher's questions, or the researcher thinks that the interviewee's answer is incomplete or unclear, either can ask further questions to get more precise information. Finally, because it is conducted orally, the researcher can explain the questions, so that it is suitable for all interviewees with different educational levels who have the ability to express themselves verbally.

3.2 Recruiting participants

The recruitment of nine participants started with the researcher's classmates (current music teachers in compulsory education), and by snowball sampling, other current music teachers were recommended to participate in the online interview.

In order to guarantee the participants' specialization in this field, this study adopts the strategy of controlled variable method. Nine music teachers were interviewed who were then teaching in the compulsory education period. Their teaching years ranged from 1 year to 20 years. The researcher invited them to volunteer interviews to discuss the possibility of conducting music projects during the volunteer phase. The reference factors of changing teaching years were helpful to understand the views and opinions of different age groups in this study.



Table 1 shows the details of nine participants, Two taught lower primary school students, five taught middle and upper primary school students, and two taught junior high school students. They were all incumbent music teachers and had a certain degree of familiarity with China's existing educational background. The grade and the year they had taught affected their filling in the questionnaire to a certain extent.

3.3 Interview code

After conducting online interviews with the nine participants, a large amount of text-based data were generated. After interviewing each participant, the researcher removed answers on irrelevant topics to make the text more reflective of the social issues and reality under study. Finally, the basic information of the nine participants related to this article was obtained through demographics and was listed in Tables 1 and 2. According to Miles & Huberman (2008) the analysis of data and the collection of data were interspersed, and finally the data were organized by using inductive coding to obtain the key themes of Tables 3 and 4 related to this paper. It should be mentioned that the interviewees are all people who are not native English speaker, so the researcher translated the words they spoke or wrote, and asked 2-3 graduate students who studied abroad in English-speaking countries for proofreading, whether the translation was appropriate and could be used as authentic and effective material in this paper.

3.4 Ethical considerations

This research adheres to the following three ethical principles. Informed consent, each participant understood that the interviews would be quoted in this research, and the consent of the participants was obtained. At the same time, the personal rights of the participants were fully protected and respected. Minimum harm, that is, the researcher carefully considered the possible negative consequences of the questions before asking questions, and reduced potential harm as much as possible in the research design. Anonymity and confidentiality, when collecting and writing materials, the researcher used numbers instead of personal information of participants, protecting the privacy of participants.

4. Findings

4.1 The context of music course in compulsory education in China

Table 2 shows how long the nine teachers taught each lesson, how many music lessons they taught, and how many classes they taught per week. As shown in Table 2 only the lower primary school level had two music courses per week, and the other school years had one session per week. Music teachers in upper elementary grades and middle schools had more teaching hours (more than 5), up to 10 classes, and the number of participants in music courses was 40-50.

4.2 Practical problems of music course PBL in compulsory education

4.2.1 Existing problems in the music curriculum

As seen from Table 3, the incumbent music teachers encountered some problems in the course of teaching, mainly appearing in three aspects. The first was that students were less willing to participate in classes. The second was the school and society, that is, the school arranged low-class hours and society paid little attention to music courses. The third was the teaching materials, which could not arouse students' interest enough, were not closely connected with society, and did not address actual needs.

4.2.2 Development and prospect of PBL in music curriculum

As seen from Table 4, only one teacher understood project learning (compared to the traditional class teaching system), and only two teachers were willing to carry out project learning as substitute teachers. However, the new learning mode of PBL was affirmed unanimously by the interviewees (after learning about PBL), who believed that it could improve the students' creativity and enthusiasm to some extent.

5. Discussion



5.1 Summary

According to the findings, music teachers have little knowledge of PBL and are unwilling to carry out this learning method due to high-class pressure and low students' willingness to participate in music classes. From the perspective of teachers, students are under pressure to enter higher education, while the teaching materials do not meet the existing social needs. Therefore, the students have low musical literacy and low willingness to participate in music classes. Based on this, this paper proposes suggestions for feasible measures based on the problems summarized. It proposes three ideas from the perspective of teachers, which can effectively alleviate a potential gap between PBL understood by teachers and that defined in the documents (Tamim & Grant, 2013). Meanwhile, it proposes three ideas from the perspective of students, which can effectively alleviate the difficulty in carrying out PBL related to students (Saputra, 2023).

5.2 The context of music course in compulsory education in China

Students' cooperation and musical literacy are low. From Table 2, the amount of music lessons in compulsory education is low. Except that P1 had two lessons a week, all the interviewees were interviewed for one lesson a week. The duration of a lesson in primary school was 40 minutes, and 45 minutes in junior middle school. In other words, only 40 minutes per week were used for music lessons in primary school and 45 minutes in junior middle school. P9 said in the interview, "Junior high school students face the pressure of entering a senior high, and the school arranges music classes in the first day, to the third day of junior high school is divided into other subjects." The above research further verifies that the reasons for students' low musical literacy are the scarcity of music courses, the school's contempt for music courses, and students' pressure to advance to higher schools.

The textbook settings do not match the actual environment. Some studies expressed serious concerns regarding the quality assurance aspects of music courses and related textbooks (Chen, 2011). A lack of collaboration with education experts was reported to increase the gap between the prepared content and students' actual needs in general music education (Ge, 2012). P9 said that streaming media was developing rapidly nowadays, but music teaching materials were still limited to the appreciation of classic tracks according to the same regional standards, and had not been combined with the real environment. This is also leading to the fact that music classes that could have been colorful has become relatively boring in order to complete the teaching tasks. The PBL model is a learning model involving the student in one project based on a problem and in the future the learners could produce real work (Colley, 2008). Compared with unified music teaching materials, PBL with music projects as the core could be better integrated with the real environment and reduce the shortcomings of large differences between music teaching and reality.

5.3 Practical problems of music course PBL in compulsory education

Teachers have an insufficient understanding of PBL and a low willingness to implement it. According to Table 2, many interviewees taught in multiple grades and classes, up to 10 classes. This is a great pressure for the instructor. Too many class hours could make it difficult for the teacher to prepare the lesson well, and the class form would become unitary. This also leads to a low willingness of the teachers to carry out the new model of project learning. Only one teacher was willing to carry out the new model of project learning. P4 said, "Project-based" learning has both advantages and disadvantages. To some extent, it can change teachers' traditional teaching methods. But we have too little contact with this mode. It will take some time to apply this form to regular teaching because of lack of experience."

In addition to the high teaching pressure, project-based learning's age-appropriate age and traditional teaching habits also become one of the reasons for the participants' worries. P1 had been exposed to students in early childhood stages all year around. She said, "The thinking of students in grades 1-3 is relatively diffuse. If teaching is conducted in the project-based learning model, teachers need to constantly bring students' thoughts back to the project topic. One class only lasts 40 minutes. Maybe the project will end in one class without any substantial development." P3 also said, "China's class teaching system has limited the development of this learning model. Project-based learning is definitely not something that could be solved in a few classes and requires long-term planning."



5.4 Strategies of music course PBL in compulsory education

In order to raise teachers' low awareness of PBL and low willingness to participate, this paper lists three solutions. First, academic lectures and special training are needed to guide teachers to understand the definition of project-based learning and how to operate the project-based learning process; second is that official documents from the Ministry of Education are needed to make constructive suggestions to schools and other institutions so that schools can pay more attention to new learning models such as project-based learning and be willing to adjust traditional teaching methods; and the third is that for teachers who have already practiced project-based learning, it needs to be carried out in primary and secondary schools for demonstrations, or a database should be established to summarize the project-based learning lesson plans that have been tested for reference by teachers who have not implemented the new learning model.

In order to raise students' low willingness to participate, this paper lists three solutions. The first is supposed to prioritize project-based learning in club activities. Club activities have flexible duration, and there is no fixed concept of a class period. There are gaps between classes, and participants can form teams freely. Meanwhile, there is no evaluation system such as final tests in club activities, so students have less pressure to participate and have a strong willingness to participate. Moreover, club activities are based on semesters, which is suitable for long-term project construction such as project-based learning. The second is expected to classify music-based project-based learning into four types—intangible cultural heritage project science popularization category, musical instrument performance category, small musical and dance drama performance category, and music creation category. The project is completed in a semester cycle, with students collecting information, group discussions and results reporting throughout the entire process, with the teacher only providing guidance or answering questions. The diverse types of music classes and the full participation of students in the learning format where teachers only provide guidance will effectively enhance students' interest in participation. The third should apply project-based learning to the first grade of junior high school. As mentioned above, project-based learning requires students to participate independently throughout the process, so students are required to have certain independent learning abilities.

5.5 Study limitation

This paper uses qualitative research methods to study the development practice issues and related strategies of project-based learning from the teacher level. However, it does not conduct interviews with students in the compulsory education stage, so it cannot support the thinking of project-based learning practice issues and strategies from the student perspective with data and evidence. The second is that the Q&A as the main form limits the interviewer's ideas to a certain extent and has a certain guiding nature. The third is that the sample of this study is also small and limited to music teachers in one area. It can only make rough generalizations and cannot accurately cover all situations. The fourth is that the idea of project-based learning has not yet been put into practice and is somewhat utopian. Subsequent research is needed to put the idea into practice stage to identify problems and then effectively solve them.

5.6 Future work

Follow-up research will be carried out in the following aspects. First, the feasibility of adding Chinese music courses and PBL from the perspective of students in China's compulsory education stage; second, using an open question and answer format instead of options to expand participants' thinking; the third is not limited to music teachers in one region, and the respondents are classified according to administrative regions; and the fourth is to use individual schools in the compulsory education stage to conduct experiments, record the problems encountered in the actual implementation, and further explore solutions.

6. Conclusion

This paper draws the following conclusions through qualitative research methods. First, the current students in China compulsory education have low musical literacy due to boring music classes, few class hours, and pressure to enter higher education. Second, existing music teaching materials cannot match the actual social environment. The above shows that music classes need a new learning model to change the status quo. This paper attempts PBL as a new learning model and explores the possibility of its development. Through



interviews, it is learned that teachers currently have little knowledge of this learning model and a low willingness to participate due to class pressure. However, the participants interviewed show high recognition of PBL as a new learning model. Therefore, this paper proposes solutions and suggestions to facilitate the implementation of PBL in music courses at the compulsory education stage in China.

Appendix

(Table 1. Interviewees demographics), from the left: (1) Participant ID (PID), (2) Teaching age, (3) Length of tenure;

PID	Teaching age	Length of tenure
P1	First and second grades	5years
P2	Second grades	1year
P3	Third and fourth grades	2years
P4	Fourth and sixth grades	1year
P5	Fifth grades	1year
P6	Fifth and sixth grades	3years
P7	Sixth grades	6months
P8	First year of junior high school	2years
P9	First year of junior high school	13years

(Table 2. Interviewees demographics), from the left: (1) Participant ID (PID), (2)Amount of time spent in music, (3)Number of students participating;

PID	Amount of time spent in music courses(per week)	Number of students participating (average)
P1	40min/2/3classes	45
P2	40min/1/5classes	40
P3	40min/1/4classes	43
P4	40min/1/5classes	46
P5	40min/1/7classes	44
P6	40min/1/6classes	50
P7	40min/1/7classes	50
P8	45min/1/8classes	47
P9	45min/1/10classes	48

(Table 3. Interviewees inductive coding), from the left: (1)Participant ID (PID), (2) Students, (3) Schools and society, (4)textbooks ;

PID	Student	School and Society	Textbook
	A: Students' poor cooperation B: Low in musical attainment C: No such problem.	A: Fewer courses offered B: Society pays little attention to disciplines C: No such problem	A: Not enough to interest students B: Students cannot be effectively trained in aesthetics. C: Tracks do not meet actual needs D: No such problem
P1	C	B	B
P2	B	B	AB
P3	A	AB	ABC
P4	B	A	AB
P5	A	B	A
P6	AB	AB	C
P7	B	B	C
P8	AB	A	AC
P9	A	AB	BC
	A: Students' poor cooperation 5 B: Low in musical attainment 4 C: No such problem. 1	A: Fewer courses offered 5 B: Society pays little attention to disciplines 7 C: No such problem 0	A: Not enough to interest students 5 B: Students cannot be effectively trained in aesthetics. 5 C: Tracks do not meet actual needs 5 D: No such problem 0



(Table 4. Interviewees inductive coding), from the left: (1) Participant ID (PID), (2) Understanding of project learning, (3) Willingness to carry out project learning, (4) Project learning age group, (5) Whether the effectiveness of project learning in creativity and independence is affirmed.

PID	Do you know anything about PBL	Are you willing to be a substitute teacher PBL	What age groups are suitable for PBL A: Higher grade of primary school B: Junior high school	Can PBL Stimulate Students' Creativity and Independence to a Certain Extent
P1	NO	NO	B	YES
P2	NO	NO	A	YES
P3	NO	NO	A	YES
P4	NO	YES	A	YES
P5	NO	NO	B	YES
P6	NO	NO	B	YES
P7	YES	NO	B	YES
P8	NO	NO	B	YES
P9	NO	NO	B	YES
	YES 1 NO 8	YES 1 NO 7	A 3 B 6	YES 9

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