

A Qualitative Study on the Application of Problem-Based Teaching Theory on Music Education: The Example of Artvin Çoruh University

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Abstract

The understanding of education where student participates in the classes actively has taken place of the traditional teacher-based understanding in the student-centered education understanding which is one of the changes put forward by modern education view. What is important here is to assure that learning is more effective, efficient and permanent through the active participation of the student in the learning process. One of the modern learning methods developed for this purpose is Problem-based Learning. This theory can be summarized as giving the student a problem and having him/her on the problem; searching solution; forming the solutions in the most appropriate way by analyzing them; and finally presenting them to the teacher. In addition to the arts and music education generally given in the traditional way, the application of modern learning theories onto these fields may be of significance in terms of reaching new and extraordinary results. The application of Problem-based Learning method which is one of these learning theories is quite recent. In this study, a problem related to music education for children has been presented to the teacher candidates, who are sophomores in Class Teaching, in accordance with the Problem-based Learning theory and they have been expected to gather information on the subject, to reach a synthesis and to find a solution. Later, the results reached by the candidates who work as groups are examined by the qualitative research method.

Keywords: Problem-based Learning, Music Education, Modern Education.

1. Introduction

1.1 Problem-Based Learning

It can be said that technological and scientific developments bring together the developments and innovations in education. The World sees increasingly developing innovations; it is even at such a degree that it becomes difficult to adapt to these innovations. The innovations in communication increase together with technology. Education, which can be considered a branch of communication, changes rapidly with these innovations. The traditional teacher-based education system is being replaced by a new system where students participate in the learning process actively. Here the student is not in a passive situation; in contrast, s/he is in an active position. Modern learning theories get renewed by changing at the same rate as parallel to this condition.

Problem-based Learning Theory is one of the mentioned modern learning theories; and, as every modern learning theory, it has a wide area of application in terms of its being applicable to every field. It can be mentioned that it involves creativity and the infiniteness of the imagination power like many modern learning theory. It may be said that memorizing information is left aside, that the individual questions every information s/he gets and establishes new ideas by incorporating information into experiences.

"PBL is used to cover an amazing diversity of educational practices, ranging from problem-oriented lectures to completely open experiential learning environments aimed at improving interpersonal relations." (Graaff and Kolmos, 2003: 657)

PBL Theory is separated from traditional learning theories in terms of several points: students make research on a specific subject on their own, they work in a group by cooperating with others, they reach a conclusion by synthesizing the information they gathered.

"...the 'Seven Step' method was developed to help student analyse the problem:

1. clarify the concepts;
2. define the problem;

3. analyse the problem;
4. find the explanation;
5. formulate the learning objective;
6. search for further information; and
7. report and test new information. " (Graaff and Kolmos, 2003: 659)

1.2 *The importance of teaching songs in music education for children*

It is known that music is useful and effective in both music courses and other courses by starting from the pre-primary period. The lyrics and expressions that take place in music exist in the children's minds, who are at early ages, longer and in a more effective way and the children can easily adapt information, which they get in this way, to their future lives more easily. Therefore, the use of songs suitable for children in other courses as well as in music courses will provide that the learnt information will be long-lasting and will not be forgotten.

2. Method

2.1 *The Research Method*

In this study, an example developed by a researcher in order to apply Problem-based Learning, which is one of the modern learning theories, to music education is presented. In the study, Content Analysis method, one of Qualitative Research Methods, is used. "Content analysis method aims at reaching some conclusions beyond the psychological, sociological, historical, economic, etc. information gathered from the message by evaluating some qualitative or quantitative signifiers". (Bilgin, 2014: 14)

2.2 *Data Gathering and The Instruments of Data Gathering*

In the study, an example of a research made within the context of "Music Teaching" course of the sophomore of class teaching. As sample, total 36 teacher candidates, 22 of whom are female and 14 of whom are male, who are the students of Class Teaching Main Branch of the Primary Education Department at Artvin Çoruh University. First, the views of the teacher candidates on the music education regarding teaching songs are taken by open-ended questions and their answers for these questions are examined through content analysis method. Besides, according to PBL theory, the candidates are required to compose a song for children at 6-10 age groups by dividing into groups. The theme of the song is determined as the nature love.

2.3 *Data Gathering Period and Process*

The teacher candidates are divided into nine groups composed of four people for this study and they are required to present the most suitable and the most beautiful song (s) that they composed as a group. The candidates are given two-week-period for this purpose. At the end of this period, the solution ways are presented by examining the songs composed by the candidates.

3. Findings

Primarily, a music education is given to the candidates of Class Teaching for about three and a half months.

- 1st week: General information on music, sound and rhythm concepts and their characteristics
- 2nd week: Notation, basic elements of notation, explanation of note and es values
- 3rd week: Series and tonality concepts, examples and analysis
- 4th week: Modality concept, examples and analysis
- 5th week: Tune concept, examples and analysis
- 6th week: Intervals (Intervalle); consonance and dissonance concept, examples and analysis
- 7th week: General Review
- 8th week: Examination
- 9th week: Music speed terms, examples and analysis

10th week: Music nuance terms, examples and analysis

11th week: Figuration, explanation through examples, the characteristics of children's songs

12th week: The analysis of children's songs

13th week: General Review

After the given music education, the importance of songs in the music education for children is asked to the teacher candidates, and they are required to compose a song for children in the light of the gathered data in accordance with PBL theory.

3.1 The importance of songs in music education

After this education, the teacher candidates' views on whether songs are important in music education for children were asked. Only two students mentioned that they thought songs are not important in music education. According to one of these candidates, "The children's understanding music is more difficult compared to adults. Therefore, they may have difficulty in perceiving both lyrics and songs. Music may be long lasting but it may be difficult to keep the lyrics in mind" (C22). The other teacher candidates mentioned that "children are more interested in the music they hear rather than the song they learn at school" (C23). It is worth attention that these candidates are female. The views of the teacher candidates who claim that songs are important in music education can be examined under the following headings.

Table 1.

Views		f	%
It is important in child development	Female	5	62,5
	Male	3	37,5
	Total	8	100
It contributes to learning	Female	11	73,34
	Male	4	26,66
	Total	15	100
It is both entertaining and educative.	Female	0	0
	Male	5	100
	Total	5	100
It arises interest because it is for children.	Female	2	50
	Male	2	50
	Total	4	100
It increases the interest and love for music course.	Female	1	100
	Male	0	0
	Total	1	100
It contributes to behaviour development.	Female	1	100
	Male	0	0
	Total	1	100

The ratio of the teacher candidates who say "**It is important in child's development**" to the total candidates is 23. 5%. The following examples can be given for these candidates' views.

"S/he can express her/himself through songs" (C24)

"It contributes to the psychological and physical needs of children" (C18)

"Because music is effective in the mental development of children" (C29)

"It contributes to emotional development" (C1)

"Music affects the development of children" (C31)

The ratio of the teacher candidates who say "It provides contribution in learning" to the total candidates is 44. 1%. The following examples can be given for these candidates' views.

"It provides that it stays longer in the minds of children and it motivates them" (C7 and C8)

"It makes it easier that children learn more effectively" (C14).

"We can teach the basic information that they must learn" (C35)

"Children take songs as model" (C12)

*"I think it will be effective because vocalization of lyrics by a rhythm includes audial learning as well" (C11).
The ratio of the teacher candidates who say "It is both entertaining and educative" to the total candidates is 14.7%. The following examples can be given for these candidates' views.
"...I think it will be more entertaining to explain them a subject" (C27)
"The child shows interest in music because songs are entertaining" (C36)
"Songs are sources of entertainment for children." (C34)*

The ratio of the teacher candidates who say "It arises interest because it is for children" to the total candidates is 11.8%. The following examples can be given for these candidates' views.

*"It reflects children's World" (C9)
"Music is the nutrition for spirit." (C25)*

The ratio of the teacher candidates who say "It increases interest and love for music education" to the total candidates is 2.95%. This candidate expressed him/herself as saying "It provides that the child loves music course more and takes pleasure" (C3).

The ratio of the teacher candidates who say "It contributes to behaviour development" to the total candidates is 2.95%. This candidate expressed him/herself as saying "It may form a new behaviour or change it" (C6).

3.2 Determining whether the given music education is sufficient for song composition

32 candidates mentioned that it is sufficient and 4 candidates mentioned that it is insufficient as response to this question. What takes attention in the explanations of candidates that express that it is insufficient is that they do not feel themselves sufficient in this matter. 3 of these candidates are female and 1 is male. The answers to the question why they feel in this way are as following:

*"I cannot make word harmony" (C12)
"I think that I cannot adapt similar intervals and rhythms and that I cannot make the harmony between lyrics and music" (C15)
"I cannot make the harmony between lyrics and music. I cannot compose a good song" (C16)
"I cannot escape from excessive skipping" (C28)*

3.3 Determining the views about which characteristic of a children's song is important

On this matter, 23 of the candidates give the answer that "song lyrics are suitable" (13 female,10 male), six give the answer that "voice width is suitable" (5 female,1 male), six give the answer that "it is suitable for subjects or units to be explained" (3 female,3 male), a female candidate gives the answer that "it is composed of same or similar intervals". That is, while the ratio of female candidates who mention "song lyrics are suitable" is 56.5%, the ratio of male candidates is 43.5%. It is seen that there is almost an equality in this point". Regarding the point "Voice width's being suitable", the ratio of female candidates is 83% while that of male candidates is 17% In the other view, there is an equality. Despite this, the view "it is composed of same or similar intervals" is seen significant only by a female student. The points "it is composed of same or similar rhythms" and "escaping from excessive skipping" are not marked by any candidate.

3.4 Determining their views about whether they are sufficient while composing a children's song.

23 candidates answered that they thought they were not sufficient and 13 mentioned that they were sufficient. Of the candidates who mentioned they were not sufficient and therefore would experience difficulty, 14 were female and 9 were male. Of the candidates who mentioned they were sufficient and therefore would experience no difficulty, 9 were female and 4 were male.

As seen here, the ratio of female candidates who thought they were not sufficient and would have difficulty in the composition step is 60% while the ratio of male candidates is 40%; the ratio of female candidates who thought they were sufficient and would have no difficulty in the composition step is 69% while the ratio of male candidates is 31%.

3.5 *Determining the reason behind teacher candidates' experiencing difficulty, who thought they would have difficulty in composing a children's song*

As a result of the answers given on the questionnaire, it is observed that the ratio of the teacher candidates who think they will experience difficulty if they are required to compose a children's song is 23 candidates from 36 candidates in total. 14 of these candidates are female and 9 of them are male. It is seen that the class gave negative answer to this questions and the reasons are asked to the candidates.

As a result of this, the points that the teacher candidates who think composing a suitable song for children will force them are those: "the song's lyrics being suitable for children" and "sound width's being suitable for children". It is seen that both conditions take the first rank as a result of the answers of 8 candidates. It takes attention that "the song's lyrics being suitable for children" is at a high rate as 8 in female candidates while male candidates do not mention this point. On the other hand, "sound width's being suitable for children" is equal in male and female candidates. In the following answers, "escaping from excessive skipping" and "its being suitable for subject or units to be explained" are marked as 4 candidates as the subject that they will have difficulty most at the stage of composing a children's song. Another interesting point is that the candidates who marked both choices are males. The point that the song to be composed is "made of same or similar rhythms" is mentioned by two candidates (one male, one female). Finally, a female teacher candidate marked the point that "it is composed of same or similar intervals".

3.6 *The evaluation made after the stage of composing a children's song*

The field where they experience most difficulty at the stage of composing a children's song is asked to 36 teacher candidates. The following conclusions are made as a result of their answers:

- 1) 10 (5 female, 5 male) of teacher candidates mentioned that the field where they had most difficulty resulted from the fact that song lyrics should be suitable for children. The ratio of these candidates to the total is 27.78%.
- 2) 9 (6 female, 3 male) of teacher candidates mentioned that the field where they had most difficulty resulted from the fact that the sound width should be suitable for children. The ratio of these candidates to the total is 25%.
- 3) 10 (4 female, 6 male) of teacher candidates mentioned that the field where they had most difficulty resulted from the fact that it should be composed of same or similar rhythms. The ratio of these candidates to the total is 27.78%.
- 4) 2 (2 female) of teacher candidates mentioned that the field where they had most difficulty resulted from the fact that it should be composed of same or similar intervals. The ratio of these candidates to the total is 5.55%.
- 5) 3 (3 female) of teacher candidates mentioned that the field where they had most difficulty resulted from the fact that it is necessary not to make excessive skipping. The ratio of these candidates to the total is 8.34%.
- 6) 2 (2 female) of teacher candidates mentioned that the field where they had most difficulty resulted from the fact that it should be suitable for the subject or unites to be explained. The ratio of these candidates to the total is 5.55%.

4. **Conclusion and Discussion**

Within the framework of these answers given to questions in the questionnaire, the task of composing a song which has lyrics that children can easily understand, which is composed of same or similar rhythms and intervals, the sound width of which is suitable for children, which escapes from excessive skipping and which is suitable for subject or units to be explained.

With the questionnaire applied after the given music education, it is aimed that the awareness of the teacher candidates and their focus on the subject increase.

The results reached by the teacher candidates through working in groups composed of four people can be summarized as following:

- 1) The children's songs composed by teacher candidates are melodic and can easily be sung by the children at the age group of 6-10. (According to the results in the questionnaire, the teacher candidates mentioned that they had most difficulty on this point)

- 2) The lyrics of children's songs composed by teacher candidates can easily be understood by the children at the age group of 6-10. (In this respect, the point which takes place among the top concerns that lyrics are not suitable for the mentioned age group is inappropriate. According to the results in the questionnaire, the teacher candidates mentioned that they had most difficulty on this point)
- 3) The concern about skipping from the same or similar intervals is mentioned by 1 candidate at the beginning of the study; and it did not come true, relatively. Songs are quite successful in this respect.
- 4) The point about escaping from same or similar rhythms is mentioned by only two candidates at the beginning of the study; however, it is marked by 10 candidates in the evaluation questionnaire made at the end of the study. The conclusion made here is that the views can change when one starts practice.
- 5) The problem of escaping from excessive skipping between the notes—which is one of the subject which is feared most—is mentioned only by two teacher candidates, three candidates mark as the point where they had most difficulty.
- 6) The problem of composing a song suitable for subject or units to be explained is marked only by two candidates according to the results obtained from the questionnaire made at the beginning of the study; again, two candidates mark it as the point where they had most difficulty.

5. Suggestions

Among the modern learning theories, one theory on which researchers study most is "Problem based Learning". In this theory, a problem, which is quite possible that they may face in their lives, is presented to students; they are required to make research; students reach a synthesis through information they gathered; and a common solution way is determined. Apart from the information given during the lesson, it is possible to benefit from this theory in music education which is expected to be based on creativity and the power of imagination. Indeed, some situations experienced in life are not actually problems. It can be said that it is the humankind itself who turn some situations into problem. This point can be realized in the field of education and the problem can be handled creatively. If music education is given as example, it can be said that the subject, which is told in a more suitable way for children, can be understood more easily. In this study, a situation chosen in accordance with the Problem Based Learning Theory is presented to the teacher candidates and authentic works which candidates can easily use are obtained. It can be said that such kind of creative studies should spread over more fields and that encouraging teacher candidates in such area will contribute to the enrichment of the future education life.

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