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The Effect of Problem-based Learning Model and Peer Tutor Method Application on Comprehension of Musical Notation Reading for Grade VII Students of SMP Negeri 1 Menes

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Abstrack

Musical notation is a music writing system in the form of images. Musical notation has become material in the learning syllabus, but, unfortunately, it cannot be conveyed optimally to the students. Based on the explanation above, the researchers have made the problems students experienced the main foundation of the learning process. It is supported by using the PBL model. In order to maximize the results of the PBL model combined with the Peer Tutor method, the use of this method makes the students the centre of learning. The combination of the PBL model and the Peer Tutor method aims to test if its application significantly affects the students' comprehension of musical notation reading. The research method used was quantitative with a quasi-experimental approach. The sampling technique used purposive samples, and the hypothesis testing employed the paired t-test formula. The results of this study are in the form of answers to the hypothesis, which are supported by the statistical test results. There is a significant difference in the average post-test score between the experimental and control groups. Based on the data, the tcount value is 13.777, while the ttable value is 1.67, with $df = 58$ and the significance level = 0.05. It is clear that $tcount > t\ table$, so H_0 is rejected, meaning there is an average difference between the post-test and pre-test scores.

Keywords: Problem-based Learning, Peer Tutor, Musical Notation

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INTRODUCTION

Art is a subject that focuses on students' character development and their level of creativity. Art education has an essential role in shaping the students' character through a good teaching system (Jelantik, 2017). Each of these fields of art has benefits and functions for developing students' sense of creativity. Learning art in schools is a medium for students' expression, communication, and development of their artistic talent and thinking abilities (Retnowati, 2015).

Musical art is a part of the material contained in cultural arts lessons. In the indicators of art music, there are many things that the students must learn, including sound processing, playing musical instruments, and learning the notation, whether it is number notation or lead sheets of notation. Music is also a subject that should make the learning process colourful (Courey et al., 2012). Kwidura et al. (2021) added that the elements in music should be able to increase students' creativity. Some elements or points will be reviewed in the subject of musical art, including both number notation and musical notation (Herdinasari et al., 2013).

Musical notation is the material in the learning syllabus, but unfortunately, the learning process is not optimal. Kuo & Chuang (2013) stated that musical notation learning feels boring for students or beginners and makes them feel insecure. Learning musical notation will attract the students if the teacher can find the proper foundation and method (Baratè et al., 2017). Furthermore, the 2013 curriculum stated that the proper learning process should make the students the main and their development, needs, interests and potential towards the environment. (Kurniasih & Sani, 2014).

The Problem-based Learning model is a way of teaching that can challenge the students to be curious about how to work in groups, learn by doing, and find solutions based on the problems with their partners (Newman, 2005). Eko Agus Basuki Oemar (2012) stated that

applying the PBL model could make students more enthusiastic about formulating problems and finding solutions. While implementing the problem-based learning model, the learning occurs in the context of the problem based on our experience (Corrigan, 2009). In addition, the peer tutor method is considered to influence the learning process of musical notation. It is explained by Ogden (2015) that small peer discussion groups would allow the students to exchange their ideas and explore themselves with challenging questions. The application of the peer tutoring method will help their creative process, which is in line with the objectives of the 2013 curriculum. Imran et al. (2022) explained that the students would find uniqueness in each other when appreciating their fellow friends, and there is no gap between them and the tutors.

The involvement of peer educators in the learning process will result in various teaching techniques, and the level of student confidence will increase (Rhodes et al., 2020). The use of appropriate learning methods will maximize the results if it is supported by the ability or experience of the students in playing the music. As stated by Jamalus in the journal (Apriadi & Sinaga, 2012), teaching music is through students' experience. The teacher can take advantage of students' musical experience to act as tutors in their study groups. When the students already have an experience in music, it will be easier for the teacher to convey the main points of the material. By applying this method and supported by students' potential or musical experience, it is hoped that it can motivate them to be able to encourage each other and help their group members to solve problems during musical notation learning.

Based on researchers' observations in several schools, precisely at the junior high school level, there are several problems related to musical learning, especially in the material of playing traditional musical instruments. In that material, some songs must be played using musical notation. However, the problem is the low attractiveness of class VII students towards musical learning, especially when the teacher

delivers the material for reading musical notation. It can be seen from students' low enthusiasm for the material presented and their passive attitude during the teaching and learning process.

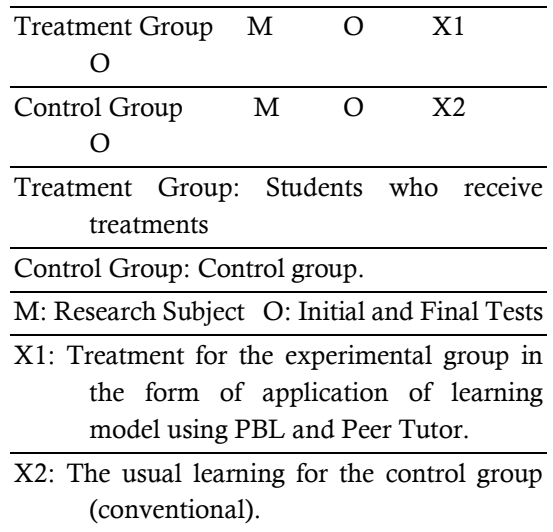
In addition, the students are considered less enthusiastic because the teacher only conveys musical notation material orally or in writing, while the learning source is sound. They become unenthusiastic during the lesson because they do not understand some parts of the material. Moreover, music learning is only a theory without any practice and does not follow the true purpose of musical learning. It has become an indication of students' passive interest in musical learning. Based on the explanation in the background, the existing problems relate to students' comprehension of musical notation reading with the application of the PBL model and the peer tutor method with the formulation of the problem "Is there any effect of the PBL model application of with the peer tutor learning method on the Comprehension Process of Reading Musical Notation on Class VII SMPN 1 MENES?"

METHOD

This research is a comparison using the statistical calculation formula. It used the quasi-experimental approach. There are two different groups, the first group is the experimental group, and the second is the control group. The main factor was seen in the pre-test and post-test results of the learning outcomes. The sample selection technique used purposive samples, which are selected based on groups of students in existing classes (Etikan, 2016). It was conducted because sampling cannot be done randomly in a quasi-experimental type of research (Ma. Dolores C. Tongco Research, 2007).

The research design used the matching-only-pre-test-post-test control group design type, in which two groups were selected directly or indirectly (Atchley et al., 2020). Each group was given a written pre-test to determine students' prior knowledge of the differences

between the experimental and control groups. The research design is shown in the following figure.



The sampling technique used purposive sampling, which means that the sample is taken based on consideration and adapted to the researcher's needs (Darma et al., 2016) and the characteristics and requirements of the population that have been previously known (Pt & Kelinci, 2013). The population in this study were seventh-grade students of SMPN 1 Menes. The seventh-grade population is nine classes (VII A-VII I) with a total of 270 students. The researcher took a sample of 60 students from the population of seventh grade, 30 students of Grade VII H as the experimental group and 30 students of Grade VII I as the control group.

The variables in this study were divided into independent and dependent variables. The independent variable contained the PBL learning model, peer tutor, and demonstration. Meanwhile, the dependent variable was the results of the initial and final tests of all students, both experimental and control groups. The research instruments used questionnaires, observation guidelines and written tests. The questionnaire is intended to determine whether the art learning is going correctly. Meanwhile, the observation guidelines assess the effectiveness of art

learning, and the written test assesses the learning success.

The data analysis employed a quantitative method. There were two stages; the first stage was to test the nature of the data based on the normality and homogeneity tests. Then, the second stage was to test the hypothesis with the difference in the average of the initial test and the final test or t-test. The data obtained from the test technique was processed in the following way.

1. The researchers collected the pre-test and post-test answer sheets.
2. The researchers scored the results of students' answers according to the answer key.
3. The researchers found the standard deviation and the average results of the initial and final tests.
4. Observe the increase in students' learning outcomes from before and after learning using the g factor formula.
5. The researchers conducted the normality test of the data distribution using the SPSS 22.
6. The researchers conducted the homogeneity test of the data using the SPSS 22.
7. The researchers examined the hypothesis by determining the significance of the difference between the average pre-test and post-test results through the t-test.

In order to find the percentage of students' success, the present research refers to the determination of the benchmark scale of ten.

Table 1. Ten-scale Benchmark Value.

(Source: Nuryadi et al., 2017)

The Percentage Interval of Mastering Level	Ten-scale Benchmark Value	Description
1	2	3
96%-100%	10	Perfect
86%-95%	9	Excellent
76%-85%	8	Good
66%-75%	7	Fair
56%-65%	6	Medium
46%-55%	5	Almost Medium
36%-45%	4	Low
26%-35%	3	Very Low
16%-25%	2	Poor
0%-15%	1	Very Poor

RESULTS AND DISCUSSION

Implementation of Problem-based Learning (PBL) Models and Peer Tutors Students' Reading Comprehension of Musical Notation Learning

This research was conducted on 7th March-1st April 2022, located at SMP Negeri 1 Menes. The quantitative research method uses a quasi-experimental approach, and the sample was taken using the purposive sampling technique. In this study, there were two different types of samples; the first sample was class VII H as the experimental class. The learning models tested in the experimental class were Problem-based Learning and Peer Tutors. At the same time, the other samples were class VII I or the control group. The comparison class used a conventional model.

The learning process in the experimental group was carried out in four meetings. The students were divided into several groups, and there was one tutor whose job was to explain the material. The first meeting started with the distribution of the pre-test sheet and the exploration of the problems experienced by the

students related to musical notation learning. Each tutor would obtain an explanation about the material from the researcher and explain it back to their group peers. Tutors' explanation process and group discussion were carried out until the last meeting.

The researchers have found several critical points during the teaching and learning process. The students find their way to explain the material to their group peers, so they know the importance of paying attention when someone is explaining something. In addition, a group can be compact if all its members can respect each other. The post-test sheets and questionnaires were distributed to the students at the last meeting. They are the instruments used in this study. In addition to written tests and questionnaires, the researchers also used observation sheets. The observation sheets were used to determine the students' activities related to problem-based learning models and peer tutoring methods during the group discussion.

Table 2. The Observation Results of the Students' Activities During the PBL and Peer Tutor

NO	Students' Interest in Conducting PBL and Peer Tutors	Description %
1	Respect others	103 26.07
2	Discipline	
3	Active	95
4	Responsible	24.05 99 25.06 98 24.81
Total		395 100

The results of observations during students' learning activities show that students'

interest in implementing PBL and Peer Tutors are the students who respect others (26.07%), discipline (24.05%), activity (25.06%), and responsibility (24.81%). The teaching and learning process in the control group was carried out for three meetings with the same learning stages in the experimental group. The difference was only in applying the model and learning method. The pre-test and post-test were given at the beginning and end of the meeting.

Students' Comprehension Ability in Reading Each Element of Musical Notation in Experiment Class and Control Class

The research data obtained was in the form of test and non-test data information and other field findings. The data were analyzed to answer the problem and prove the proposed hypothesis. Test data is intended to obtain quantitative results, while the non-test data supports quantitative results (Rofiah et al., 2013). The test data aims to determine how effective the comprehension learning of musical notation reading was by applying a problem-based learning model and peer tutoring, so a multiple-choice test was given to the students with twenty questions. This test was given before (pre-test) and after the learning took place (post-test). The data on the effectiveness of comprehension learning of musical notation from the results of the initial and final tests in the experimental and control groups can be seen in Table 3 below.

Table 3. The Average Score of Musical Sheets Comprehension Ability

Students' Scores	The Average of Pre-test Score	The Average of Post-test Score
Experimental group	5.86	15.53
Control group	4.73	5.4

Students' Scores	The Average of Pre-test Score	The Average of Post-test Score
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Based on the table above, it can be seen that the average initial test score for the effectiveness of students' comprehension of musical notation learning is still low, namely for the experimental group 5.86 and the control group 4.73. It shows that the students have not understood the material before learning. However, their comprehension of musical notation test results increased after receiving the treatment. In addition, when the post-test scores of the two groups were compared, namely for the experimental group at 15.53 and for the control group at 5.4, the post-test average was more than the pre-test average. Therefore, based on these data, there is an effect on the comprehension of musical notation reading by applying the Problem-based Learning (PBL) learning model with the Peer Tutor teaching method after the learning process, and student achievement has increased.

The indicators used for each learning element were adjusted to the syllabus and lesson plans. The elements used in the experimental and control groups are the same, including students' comprehension of the form of notation, ability to understand time signatures, and ability to distinguish the names of notes—the following results from an analysis of students' comprehension related to musical notation reading.

The comparison indicator of the notation form shows students' ability in the form of musical notation by using five questions, namely numbers 1, 2, 5, 6 and 16. After the pre-test was carried out on 30 students, it shows that the answers obtained by the experimental group were 60. The score indicates that the average score is 1.5 (60%). In the implementation of the post-test, there was an increase in the score in which the correct answers from the students were 120 with an

average score of 4 (80%). It shows an increase in the score of the experimental group students by 40%. On the same question, the students from the control group obtained a total score of 45 with an average of 1.5 (30%). After the post-test, the score for the control group increased to 75 with an average of 2.5 (50%). These data show that the control group score has increased by 20%.

The comparison between the experimental and control groups' pre-test scores shows a relatively small difference. The result obtained by the experimental group was 60, while the control group was 45. Therefore, the difference between the pre-test results of the experimental group and the control group was 15. The post-test score showed a real difference. The score of the experimental group was 120, while the control group was 75, with a difference of 45. The experimental group had an increase in scores from pre-test to post-test by 60, while the control group had an increase of 30. It shows that the experimental class had an increase in obtaining good scores compared to the control group.

The results of the time signature comparison were carried out using two questions, namely numbers 12 and 13. After the pre-test was carried out on 30 students, the answers obtained by the experimental group amounted to 20. The scores indicated that the average score was 0.6 (33%). In the implementation of the post-test, there was an increase in the high score, and the correct answers from the students were 52 with an average score of 1.7 (86%). The result showed an increase in the score of the experimental group students by 53%. On the same question, the students from the control group got a total score of 12 with an average of 0.4 (20%). After the post-test, the score for the control group had increased to 26 with an average of 0.8 (43%). The data inferred that the control group score had increased by 23%.

The comparison of the pre-test scores between the experimental group and the control group showed a relatively small difference. The result obtained by the

experimental group was 20, while the control group was 12. Therefore, the difference in the pre-test results between the experimental and control groups was 8. The post-test score showed a completely different result. The score of the experimental group was 52 while the control group was 26, with a difference of 26. The experimental group had an increase in scores from pre-test to post-test, as much as 32, while the control group increased by 14. It shows that the experimental class had an increase in obtaining good scores compared to the control group.

The students' comprehension of the comparison of tone shows their ability on the rest symbols of musical notation by using thirteen questions, namely numbers 3,4,7,8,9,10,11,14,15,17,18,19, and 20. After the pre-test was carried out on 30 students, the answers obtained by the experimental group amounted to 81. The score shows that the average score is 2.7 (20%). In the implementation of the post-test, there was an increase in the score, and the correct answers from the students were 280, with an average score of 9.3 (72%). It shows an increase in the score of the experimental group students by 52%. On the same question, the students from the control group obtained a total score of 75 with an average of 2.5 (19%). After the post-test, it shows that the score for the control group has increased to 120 with an average of 4 (30%). The data has proven that the score of the control group has increased by 11%.

The comparison of the pre-test scores between the experimental group and the control group showed a relatively immediate difference. The results obtained by the experimental group were 81, while the control group was 75. Therefore, the difference in the pre-test results between the experimental and control groups was 6. The post-test scores also showed a relatively immediate difference. The score of the experimental group was 280, while the control group was 120, with a difference of 160. The experimental group had an increase in scores from pre-test to post-test at 199, while the control group increased by 45. It shows that the

experimental class had an increase in obtaining good scores compared to the control group.

The description of the comparison of the acquisition of pre-test and post-test scores for the experimental and control groups on each element of the previous musical notation shows the relatively high tendency to increase scores in the experimental group. While in the control group, there was an increase in the score, but it was not too high. It shows that implementing the Problem-based Learning (PBL) model and Peer Tutors in the experimental group influenced the student learning outcomes. In other words, Problem-based Learning (PBL) and Peer Tutors could affect the effectiveness of learning to understand reading musical notation in class VII H SMPN 1 Menes.

Data Analysis and Hypothesis Test Results

In the previous section, various data and data analyses have been found. The analysis data found consisted of three parts: data and analysis of model implementation data, data on appreciation ability analysis, and data and analysis of the test results. This section will present a general analysis based on the three types of data and analysis above. It was conducted because the description of the application of the Problem-based Learning (PBL) and Peer Tutor models was not found in the description of the data and analysis. Moreover, this step was carried out to synthesize the findings obtained in the data description and analysis.

In implementing learning, teachers must motivate the students to prepare themselves for the learning and teachers are also required to prepare themselves as optimally as possible before carrying out the learning process (Anggraini, 2021), with careful preparation from both parties. The learning will take place smoothly according to the lesson plan (Muh., 2016). The efforts to prepare the students to learn is a step that must be the teacher's concern. The students must understand the learning information. Likewise, various tasks that the students must carry out must be appropriately conveyed so that the teachers and

students have certainty in carrying out the learning process (Anugraheni, 2017). With the clarity of this information, the learning can be carried out without any significant obstacles.

During the learning implementation, the teachers must utilize students' competence in finding the concept of learning material. They must explore students' concepts of the material first and not impose the concept on their students (Boyd et al., 2009). Likewise, the various findings of students' comprehension of the musical notation were the results of students' thoughts instead of teachers'; the teachers were only guides so that the students would not leave the goals that had been set (Hollins, 2011). The teachers did it by providing the learning materials, group discussions, and confirmation.

The implementation of research on the implementation of learning models for comprehension reading of musical notation has resulted in data descriptions and data analysis, which leads to a conclusion that the Problem-based Learning (PBL) model and Peer Tutors have advantages and influence students' comprehension in reading the musical notation. The advantages can be seen from the influence of comprehension reading of musical notation based on observations during the teaching and learning process and the scores obtained by students in the initial and final tests. The pre-test score is used to measure students' knowledge of musical notation before being given treatment, while the post-test is to see the final results after the learning process is given treatment (Knapp, 2016).

The advantages of using Problem-based Learning (PBL) and Peer Tutor learning models can be seen from the calculation results of the significance test with the t-test, which is then compared with the t-table value. The calculation results show that with a 95% confidence level, tcount (6.961) is more significant than ttable (1.67). It means that there is a significant difference between pre-test and post-test or tcount (6.961) > ttable (1.67).

The results of the t-test also serve as a hypothesis test with the conclusion that if the tcount is greater than the ttable, then the working hypothesis H_a is accepted, and H_o is rejected. Therefore, it can be interpreted that the Problem-based Learning (PBL) model and Peer Tutor can streamline students' comprehension of musical notation reading. This model can be used as a reference by teachers to improve their learning quality (Padmayani et al., 2017). It is because Problem-based Learning (PBL) and Peer Tutors are the learning models that make students think actively and creatively (Nasihah et al., 2020).

The experimental group's results were obtained using the Matching-Only-Pre-test-Posttest Control Group Design and were tested using the t-test (independent sample t-test). The t-test was used to compare two unrelated groups' initial and final results. This test has undergone two stages; the first stage of testing was carried out to test whether there is a variance between two different populations that are considered equal or not by using the following hypothesis.

Table 4. The Average Pre-test Scores of Experimental and Control Group

Group		Statistic		
	N	Mean	Std. Deviation	Std. Error
Pretest Experimental Group	30	5.8667	2.96803	.54189
Control Group	30	4.4000	3.42002	.62441

The average results, as in table 4, produced the experiment group's average pre-test score greater than the average control value (5.87 > 4.40). Therefore, it was concluded that the experimental group had a higher score than the control group. The difference between the experiment group's initial test scores and the control group was 1.47.

The post-test was carried out on the experimental and control groups after the learning activities in the classroom. The

purpose of the post-test was to determine whether there was an effect on students' reading comprehension of musical notation after learning. The results of the average final test can be seen in table 5. Hence, students' reading comprehension of musical notation after learning using the PBL learning model and Peer Tutor in the experimental group and conventional models in the control group can be seen clearly.

Table 5. The Average Post-test Scores of Experimental and Control Group

Group Statistics				
Post-test	N	Mean	Std. Deviation	Std. Error Mean
Experimental Group	30	15.5333	2.40306	.43874
Control Group	30	5.4000	3.23345	.59034

The table above shows the final average post-test scores from the experimental group greater than the control group (15.53 > 5.40). Therefore, it was concluded that the experimental group had a higher score than the control group. The difference between the post-test results of both groups is 10.13.

Table 5 above shows a significant difference in the average post-test score between both groups. From the table, the tcount value is 13,777, while the ttable value is 1.67 with df = 58 and a significance level of = 0.05. It is clear that tcount > ttable, so Ho is rejected. It means an average difference between the post-test and pre-test scores. The value of tcount (6.961) is greater than ttable (1.67), so it can be concluded that there is a significant difference between the scores obtained from the initial and the final test. Such a significant level indicates that the treatment of the PBL learning model with the Peer Tutor method given to the experimental group affects students' reading comprehension of musical notation because there is an increase in the results of the initial and final tests.

Therefore, the treatment given to the experimental group was higher in contributing to the increase of the scores than the treatment given to the control group. The following is a recapitulation of statistical test results for the experimental and control groups.

Table 6. The Recapitulation of Statistical Test of Experimental and Control Groups

Class	Difference Test	Statistical Test Results	Description
Posttest Eksperimental Control	<i>Paired sample t-test</i> (One-sided test)	The average final score of experimental group is higher than the control group	Significant
Gain Eksperimental Control	<i>Paired sample t-test</i> (One-sided test)	The average final score of experimental group is higher than the control group	Significant effectivity

Based on the table above, students' average reading comprehension ability of musical notation using the PBL model with the Peer Tutor Method in the experimental group is better than the ability to read musical notation of the control group students comprehensively. In other words, there is an influence on reading comprehension of musical notation, so implementing PBL and Peer Tutor methods is more effective than conventional learning.

The Effect of Problem-based Learning and Peer Tutors on Reading Comprehension of Musical Notation for Class VII Students of SMPN 1 Menes

Based on the results of research on the teaching and learning process and testing hypotheses regarding the use of Peer Tutor and Problem-based Learning (PBL) models in the comprehension learning of musical notation, the researchers have found that they could make reading comprehension activities more effective. Learning can be effective because the problems become the main factor in the learning process (Surya et al., 2018). Arikunto (2009) added that when the students are trying to find solutions to problems, their critical thinking level will increase, and their sense of cooperation to solve problems arise. Their skills in finding and processing information will increase.

The effectiveness of this model can be seen in the increase in test scores. It has been proven from the results of the post-test. The students have a significant increase in scores compared to the pre-test. The increase was obtained based on a comparison of the pre-test and post-test results. It is the answer to the research questions: How were the learning outcomes of reading comprehension of musical notation after the application of Problem-based Learning (PBL) and Peer Tutors? The answer was that the Problem-based Learning (PBL) model and Peer Tutor could influence reading comprehension of musical notation. It is because when the students find problems or difficulties at the beginning of their learning, they try to face them. In addition, they try to find solutions with their friends (Maskur, 2016).

The questionnaire results showed that the Problem-based Learning (PBL) model and Peer Tutor influence students' comprehension of musical notation reading, and it was proven that 28 students (93%) thought they could understand how to read musical notes more deeply. Newman (2005) stated that when the learning process makes the students' problems as the basis, the learning material will be more

readily understood by the students. Moreover, using a problem-based learning model has indirectly made the students think more creatively, and the learning process is more active (Pradana, 2018).

Problem-based learning models will be maximized when it is supported by the use of peer tutoring methods (Arnawa, 2021). It is because when the students find the problems, they will find solutions together, and there will be no students who feel embarrassed. Delquadri et al. (1986) stated that the students would not feel inferior or unconfident with peer tutoring because the tutors are their peers. Their self-confidence will grow when they feel there is no age limit between them and the tutors or teachers (Febianti, 2014).

Applying the problem-based learning model and peer tutoring also aims to build students' self-confidence and cooperation. In addition, mutual respect between friends in the same group will be established. When the students find problems and solve them with their peers, a sense of mutual respect will grow (Nath & Ross, 2001). Besides growing a sense of respect, peer tutoring methods also can make students think creatively.

Problem-based learning models and peer tutoring make the students think creatively because one student suggested that he wanted to use the way he understood to explain the material to his group peers at the third meeting in the experimental class. The use of peer tutoring methods and problem-based learning models influences the application of students' sense of creativity. Padmayani et al. (2017) added that the application of PBL and peer tutoring has made the students active, starting from formulating problems and finding solutions to problem-solving (Nasihah et al., 2020).

CONCLUSION

Based on the results of data analysis and the previous discussion, there are several conclusions regarding implementing the

Problem-based Learning (PBL) model and the Peer Tutor Method at SMPN 1 Menes.

First, the Problem-based Learning (PBL) model and Peer Tutor can streamline students' reading comprehension activities of musical notation. The effectiveness of this model can be seen from the increasing score. Proven by the post-test result, the students significantly increased scores compared to the pre-test. The increase in students' scores was obtained by comparing the pre-test and post-test results. The answer to the research question is how the learning result of the comprehension of musical notation reading after Problem-based Learning (PBL) and Peer Tutors. It turns out that Problem-based Learning and Peer Tutors can influence students' comprehension of musical notation reading.

In addition, the questionnaire results showed that the Problem-based Learning (PBL) model and Peer Tutors influenced students' comprehension of musical notation reading. It was proven that 28 students (93%) thought they could understand how to read musical notation more deeply. When the learning process makes students' problems the basis, the learning material will be more readily understood by the students. It is because, at the beginning of the learning, the students find problems or difficulties, and they face them. Then, they try to find solutions together with their groups. Moreover, problem-based learning indirectly makes them think more creatively and results in an active learning process.

The problem-based learning models will be maximized when peer tutoring methods support them. It is because using peers as tutors will make the students more confident. They will not hesitate to ask questions or express their opinions; when they have different opinions, they will learn to respect each other. The combination of the PBL model and peer tutoring has made them dominant in the learning process.

The effect of applying the problem-based learning model and peer tutoring can also be

seen in the results of hypothesis testing. It was found that the ability to understand musical notation reading has increased significantly. It shows that using the Problem-based Learning (PBL) model and the Peer Tutor method influences students' comprehension of musical notation reading. The increase of the average score from the initial test to the final test has shown a result calculated through the t-test. It shows that a 95% confidence level of tcount (6.961) is more significant than ttable (1.67).

Based on the present research and the hypothesis testing, it can be concluded if Ho: There is no effect of using the Problem-based Learning (PBL) model and Peer Tutor Method on the comprehension of seventh-grade students of SMP Negeri 1 Menes in reading musical notation is rejected. While Ha: There is an effect of using the Problem-based Learning (PBL) learning model and Peer Tutor Method on the comprehension of seventh-grade students of SMP Negeri 1 Menes in reading musical notation.

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