THE EFFECTIVENESS OF THE TET LEARNING MODEL ON PIANO LEARNING

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Abstract-This study aims to determine the effectiveness of the TET learning model on piano learning in the Music Education Study Program. The type of research is development research using the Borg and Gold development model. Stages of research by testing the effectiveness of the product. The results of the hypothesis testing research prove that there is a significant difference between student learning outcomes who are taught using the TET learning model and student learning outcomes who are taught without using the TET learning model. The results of the calculation of the N-Gain score show that the average value of the N-Gain Score for the small class is 54.70, including the effective category (medium) then the average value of the N-Gain score for the large class is 44.69 including the category effective (medium).

Keywords: Piano learning, learning model, effectiveness.

INTRODUCTION

Universities are at the forefront of the growth and development of the quality of education in Indonesia. Universities are fully responsible for producing professional human resources to have high skills (skills) that are needed in the current technological era. Universities are also agents of change at the same time. Universities and the government synergize to promote professional human resources.

The government describes the steps that will be taken in order to improve the quality of education in Indonesia, including: increasing access to the community to be able to enjoy education in Indonesia. The benchmark is the participation rate, the next step is to eliminate inequality in access to education such as inequality in rural and urban areas, as well as gender, the last step is to improve the quality of education by increasing the qualifications of teachers and lecturers and increasing the average passing score in the national exam.

Along with technological advances, it requires every individual to have the skills needed in the era of technology learning, including: complex problem solving, critical thinking, creativity, people management, coordinating with others, emotional intelligence, judgment and decision making and service orientation. If all of that has been fulfilled, it will be able to give birth to professional human resources and of course ready to use in accordance with the goals of higher education and the expectations of the government.

In the current era of technological disruption, productive and skilled human resources are needed that cover all aspects of the education sector, capable of producing competent human resources, also supported by critical and creative human resources and possessing high skills. For this reason, it is necessary to implement a learning system that focuses on high creativity and critical thinking for students, or what is commonly referred to as high order thinking skills (HOTS).

Effective learning in the technological era no longer requires students to memorize concepts and applications, but must be higher than that, students must be able to think critically and creatively and be able to grow high reasoning power. The role of educators must be able to create creative and innovative learning strategies and models to design learning as an instructional designer. In addition, effective learning in the technology era requires educators to be able to recognize the character of

their students, educators must be able to investigate situations and conditions of learning in the classroom, must also be able to implement methods, models, learning strategies, and learning designs that appropriate and also varied programs in the learning process in the classroom. Students are not only used as learning objects but also as learning subjects so that the learning process will become more involved with students (student centered learning) instead of focusing on educators (teacher centered learning), and finally what is expected is the correct learning substance. -actually achievable.

Creative educators are always looking for new breakthroughs in the teaching and learning process, able to explain learning material, and can even directly practice what has been described previously, in other words theory and practice are in line. The creativity and activity of educators in the classroom cannot be separated from the strategies used. Dick, Carey, and Carey (M. Atwi, 2014: 262) said that:

Instructional strategy is used generally to cover to various aspects of choosing a delivery system, sequencing and grouping clusters of content, describing learning components that will be included in the instruction, specifying how student will be grouped during instruction, establishing lesson structure and selecting media for delivering instructions.

Quality learning models and strategies will not succeed if they are not supported by high-level learning struggles by the students themselves. Besides that, the behavior of students is related to the concepts of observation and psychic activity (intelligence, thinking, motivation), learning styles, individual differences and individual development patterns, while the behavior of educators is related to management and classroom learning, as well as environmental aspects related and play a role in learning and learning activities, namely the social and instrumental environment, all of which are determinants of learning success factors.

Quality learning design will have an impact on quality learning outcomes as well. "Design is not just what it looks like and feel, but design is how it works" M. Rusdi (2018). In other words, educators must have the ability to provide the presentation of learning materials in class through methods, as well as interesting and even interactive models, so that they will be able to improve student learning outcomes. There are many kinds of techniques for presenting learning materials in class including: discussion techniques, group work, simulations, demonstrations, field trips, field work, exercises/drills, question and answer, assignments, lectures, and so on.

The development of the world of technology is increasingly rapid, has great potential for the advancement of the world of education, and should be able to be implemented in the world of education. The development of the world of technology in Indonesia can be a very good potential in an effort to improve the quality of human resources (HR). Along with the progress of the times followed by technological advances which have an impact on the progress of the world of education, so inevitably it requires educators to be able to use variations and be able to combine and collaborate on techniques for presenting learning materials in class that are mutually compatible and mutually supportive combined with the use of learning media, such as computers, videos, radio, learning CDs, tutorials and various other technological tools.

UNESCO (2002) stated that the integration of computer information technology (ICT) to the learning process has three main objectives, among others: (1) to build knowledge based society habits such as problem solving skills, communication skills, the ability to find, manage information and turn it into new knowledge, and communicate it to others. , (2) to develop skills in using ICT (ICT Literacy), and (3) to improve the effectiveness and efficiency of the learning process. Theoretically, ICT plays an extraordinary role to support an active, constructive, collaborative, intentional, conventional, contextual, and reflective **learning process.**

The integration of ICT in the learning process occurs in all aspects of education, one of which is music education. Along with technological advances, the entertainment world in Indonesia has also experienced rapid progress, marked by many formal, non-formal and informal events and activities held by government agencies, private institutions, and private communities (schools, offices, institutions, people's houses, buildings, hotels, cafes, restaurants and so on) who always use music in their daily activities, music used for national ceremonies, religious ceremonies, or entertainment. The presence of music in various community activities is very beneficial.

The process of learning music is certainly very different from the learning process of other fields of study such as Mathematics, Chemistry, Physics, Religion, Indonesian, English, Sports and others. The process of learning music is more likely to practice skills or practice musical instruments (skills), the psychomotor aspect plays a very important role. The cognitive aspect requires students to master the basic theoretical knowledge of music, so that it will facilitate students in the process of practicing musical instruments. In addition to the psychomotor and cognitive aspects, music learning also requires students to have a good level of musicality, be able to hear sounds, be able to feel sounds, be able to sing sounds, and even be able to distinguish sounds, all of which complement each other.

The music learning process requires continuous practice and also using musical instruments as a medium. Many factors determine the success rate of music practice learning, including internal factors, namely health, intelligence, memory, willingness and talent, then external factors, namely the home environment, learning environment, curriculum, infrastructure and teachers.

The Music Education Study Program (PSPM) offers many music courses (subjects in the field of study), including: Piano Practice courses, Basic Music Theory, Solfegio, Ear Training, Harmony, Music Arrangement, Music Composition, Biola, Vocals, Choir, wind instruments and others. Of the many courses offered at PSPM above, one of them is the piano practice course. There are many obstacles in the learning process of piano practice in the classroom, among others, the students' ability to master the Basic Music Theory (TDM) is still not optimal, which includes, among others: (1) for mastery of notes, 50% of students' abilities are still complete, the remaining 50% have not. finished. (2) for the mastery of notes in the key of G and the key of F, still 40% of students have completed, (3) for mastery of rhythm patterns (rhythm) are still 50% of students who have completed, (4) for mastery of time signatures 2/4, , 4 /4 are still 50% of students who have completed, (5) for mastery of the para-tone lines are still 60% of students who have completed, (6) for mastery of the location of the notes on the upper auxiliary line and on the auxiliary line, still 40% of students who have completed, (7) for mastery of dynamic signs is still 6o% of students who complete, (8) for mastery of chromatic signs still 40% of students who complete, (9) for mastery of the position of the notes on the piano keys according to the location of the notes on the score (song book), still 40% of students have completed, and various other obstacles.

All of the basic theory of music mentioned above is an integral component that students must master to be able to practice the piano. Face to face piano learning strategies that have been implemented in piano practice courses are considered less effective and less efficient, where lecturers and students do not have much time to interact, discuss and communicate.

The learning process for piano practice courses at PSPM is presented in the form of 25% theory and 75% practice. Related to this, the article entitled Design Framework for Educational Media – Science Direct, Social and Behavioral Sciences, (2015) said"learning by doing is the most popular and effective process of learning ever adopted by psychology and it is based on practical training in order to create vocational skills the trainees gain experienced in group participation in techniques or technology learning". (learning by doing or by practicing is much more popular and effective).

The importance of this piano practice course is so important that it is hoped that when students enter the community, students' piano practice skills are needed in carrying out various musical activities at school and outside of school. To overcome the problems that occur in the piano practice course, the researchers tried the peer tutor learning model and tutorial learning so that the TET model (Peer Tutor, Evaluation, Tutorial) was born.

FINDINGS AND DISCUSSION
1.Test the effectiveness of research products

a). Test the Effectiveness of the TET Learning Model in Small Class Trials

To analyze the effectiveness of the research product, two trials were conducted, namely a small class trial and a large class trial. For small class trials, the research subjects were nine students in the odd semester of the 2020/2021 Music Education Study Program. Sampling technique through random. Analysis of the effectiveness of small groups obtained from learning outcomes in the cognitive/psychomotor domain, the data were analyzed using excel software and SPSS version 23.

The first step before applying the developed learning model, the researcher first gave a pretest (initial test), then was given treatment by applying the TET learning model to the piano course for eight meetings, then given a posttest (final test) to see the difference in learning outcomes before and after applied the TET learning model. This is in the form of a bar chart below:
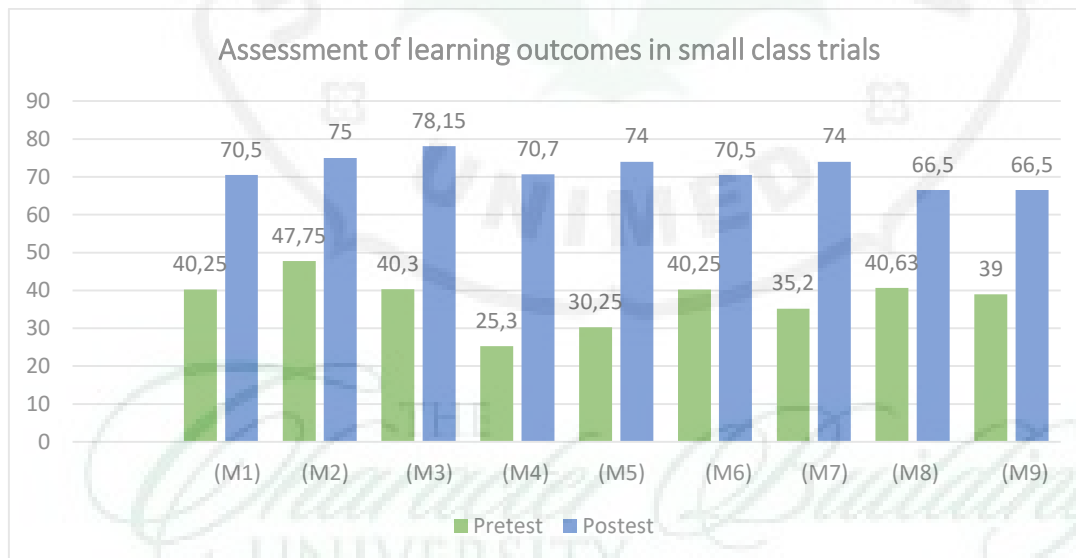

Figure 1 Bar Diagram of Pre-test and Post-Test Values in Small Class Trials

Based on the data in Figure 1, the average value (mean) of the pretest in the small class trial is 37.66 and the average value (mean) of the posttest in the small class trial is 71.76. This shows that there is a difference in the average learning outcomes before and after the implementation of the TET learning model of 34.10 points.

Furthermore, before testing the hypothesis to see the difference in the mean of learning outcomes before and after the application of the TET learning model of 34.10 points significantly different, then the data analysis requirements test was carried out through the normality test and

homogeneity test. Normality test and homogeneity test aim to test the next hypothesis. The normality test is needed to test whether the data is normally distributed or not, while the homogeneity test is needed to test whether the sample has the same initial value or not.

The normality test was carried out with the help of SPSS statistics version 23 using the One-Sample Kolmogorov Smirnov Test analysis technique with a significance level of α=0,05. The distribution of the data is said to be normal if the statistical significance is more than α=0,05. The homogeneity test was carried out with the help of SPSS Statistics version 23 with the One-way Anova analysis technique with a significance level of α=0,05. The data is declared to have the same variance (homogeneous) if the statistical significance is more than α=0,05. The following is a conclusion/summary of the results of the normality test and the homogeneity test of the pretest and posttest data in table 1.

Table 1 Conclusions/Summary of Normality Test Results and Homogeneity Test for Small Class Trials

Tes	Test Result		Description
	Normality	Homogeneity	
Pretest	0,119	0,243	Meets the analysis requirement test
Postest	0,200		Meets the analysis requirement test

The data in table 1 shows that all sig. > 0,05 so that all the data follow a normal and homogeneous distribution. With the fulfillment of the two conditions for the parametric statistical test, then the next step is to test the hypothesis using the paired t-test formula. Based on the results of data analysis in Appendix 19 using SPSS version 23, it was found that sig. (2-tailed) =0,000 <α=0,05This indicates that there are differences in student learning outcomes before and after students are taught with the TET learning model, with the understanding that there are differences in learning outcomes before and after students are taught with the TET learning model at a significance level of 5%. This proves that there is a significant difference in learning outcomes before and after students are taught the TET learning model of 34.10 points, due to the influence of the application of the developed model on the piano learning activities carried out.

To see the effectiveness of the TET learning model that is applied to piano learning for small class trials, it can be seen by the normalized N-gain test. The normalized N-gain test is obtained from the calculation of the difference between the pretest and posttest values, then the average gain is calculated so that it can be concluded whether it is high, medium, or low criteria. The criteria for the effectiveness of this study refers to the average normalized Gain value of at least moderate criteria. The following is table 2 of the average N-gain test

Table 2 Average Normalized Gain Value in Small Class Trials

Trial	Average				
	Pretest	Posttest	Gain	N-Gain	Category
Small Class	37,66	71,76	34,10	54,70	Medium

Table 2 shows that the N-Gain in the small class trial of 54.70 can be concluded that the TET learning model has an impact on piano learning for the small class trial of 54.70% in the medium category

b. Test the Effectiveness of the TET Learning Model in Large Class Trials

Analysis of the effectiveness of the research product in a large class trial involving 24 students of Music Education Study Program. Random sampling technique (random). As with the small class test, for the analysis of the effectiveness of large classes obtained from learning outcomes in the cognitive domain.

In the large class trial, before applying the TET learning model, the previous researcher gave a pretest and then was treated by applying the TET learning model to piano learning for eight meetings, then a posttest was held to see the difference in learning outcomes before and after the TET learning model was applied. The following are the pretest and posttest scores obtained by students in Figure 2 below:
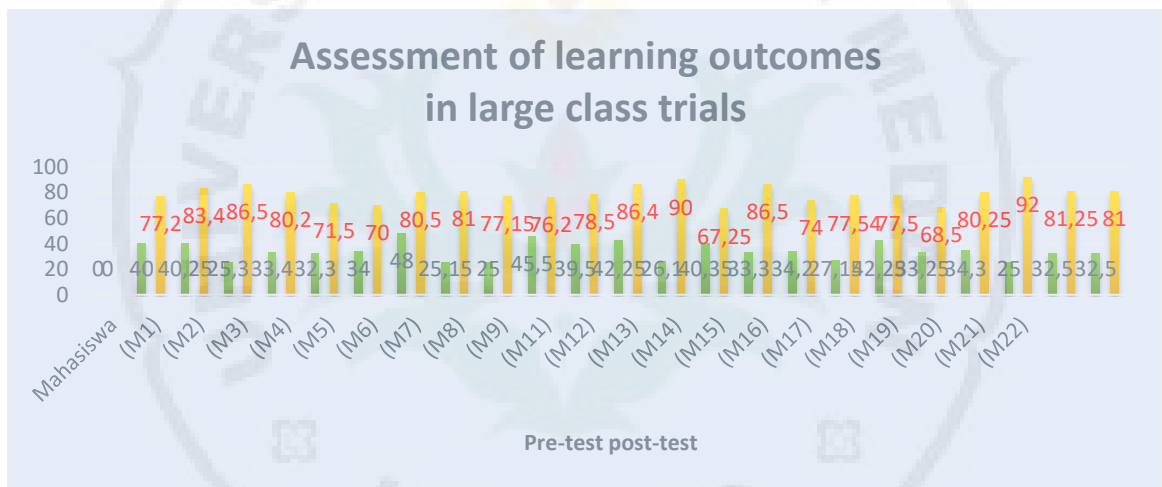

Figure 2 Bar Diagram of Pre-test and Post-Test Values in Large Class Trials

Based on Figure 2, the average value (mean) for the large class trial is 34.41 and the average (mean) posttest is 79.10. This proves that the average difference in learning outcomes before and after the implementation of the TET learning model is 44.69 points.

Furthermore, before testing the hypothesis to see the difference in the mean of learning outcomes before and after the implementation of the TET learning model of 44.69 points significantly different, then the data analysis requirements test was carried out through the normality test and homogeneity test. Normality test and homogeneity test aim to test the next hypothesis. The normality test is needed to test whether the data is normally distributed or not, while the homogeneity test is needed to test whether the sample has the same initial value or not.

The normality test was carried out with the help of SPSS statistics version 23 using the One-Sample Kolmogorov Smirnov Test analysis technique with a significance level of α=0,05. The distribution of the data is said to be normal if the statistical significance (sig.) is more than α=0,05. The homogeneity test was carried out with the help of SPSS Statistics version 23 with the One-way Anova analysis technique with a significance level of > 0,05. The data is declared to have the same variance (homogeneous) if the statistical significance (sig.) is more than α=0,05. The following is a conclusion/summary of the results of the normality test and the homogeneity test of the pretest and posttest data in table 3.

Table 3. Conclusions/Summary of Normality Test Results and Homogeneity Test for Large Class Trials

Tes	Test Result (sig.)		Description
	Normality	**Homogeneity**	
Pretest	0,061	0,828	Meets the analysis requirements test
Postest	0,200		Meets the analysis requirements test

The data in table 3 shows that all sig. > 0,05 so that all the data follow a normal and homogeneous distribution. With the fulfillment of the two conditions for the parametric statistical test, then the next step is to test the hypothesis using the paired t-test formula. Based on the results of data analysis in Appendix 21 using SPSS version 23, it was found that sig. (2-tailed)=0.000 <α=0,05 . This indicates that there are differences in student learning outcomes before and after students are taught with the TET learning model, with the understanding that there are differences in learning outcomes before and after students are taught with the TET learning model at a significance level of 5%. This proves that there is a significant difference in learning outcomes before and after students are taught the TET learning model of 44.69 points due to the influence of the application of the developed model on the piano learning activities carried out.

To see the effectiveness of the TET learning model that is applied to piano learning for large class trials, it can be seen by the normalized N-gain test. The normalized N-gain test is obtained from the calculation of the difference between the pretest and posttest values, then the average gain is calculated so that it can be concluded whether it is high, medium, or low criteria. The criteria for the effectiveness of this study refers to the average normalized Gain value of at least moderate criteria. The following table shows the average N-gain test:

Table 4 Average Normalized Gain Value in Large Class Trials

Trial	Average				
	Pretest	**Posttest**	**Gain**	**N-Gain**	**Category**
Large Class	34,41	79,10	44,69	68,13	Medium

Table 4 shows that the N-Gain in the large class trial is 68.13 it can be concluded that the TET learning model has an impact on piano learning for the large class trial of 68.13% in the medium category is said to be effective.

3. Interpretation of N-gain Score Test
The following is the description of the categorization of the interpretation of the N-gain value, in the table below:

Table 5 Categorization of the Effectiveness of the N-gain Value (%)

Percentage %	Interpretation
Less than 40	Not effective
40-55	Less effective
56-75	Quite effective
More than 76	Effective

Source: Hake 1999

CONCLUSION

The results of the t-test (sig.2 -tailed < 0.05) showed that there were differences in learning outcomes before and after students were taught significantly due to the influence of the developed model. Effective test results with normalized N-Gain tests in small and large classes show that the implementation of the TET learning model developed is effectively used to improve student piano learning outcomes.

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