

Comparison of Student's Musical Intelligence Based On The Pianika Ensemble Extracurricular

Ferronica Nita Deavani, Putri Yanuarita Sutikno

Department of Primary School Teacher Education,
Faculty of Education, Semarang State University

Corresponding e-mail: deavanifn19@gmail.com

Abstract

Based on the results of pre-research observations, it is known that the musical abilities of grade V students are more developed in the realm of theoretical knowledge than the practice of playing pianika. Students understand the material of musical scales such as the concept and types of musical scales theoretically, but have difficulty applying them to the game of pianika or are less skilled at playing pianika. This study aims to determine the significant difference between the musical intelligence of students who get and do not get the pianika ensemble extracurricular. This type of research is comparative research. The sampling technique was purposive sampling. The data collection used the technique of playing pianika skills tests, interviews, observation, and documentation. The results showed that Tersobo 1 elementary school had an average score of pianika playing skills of 15.74 higher than Sidogede 2 elementary school at the pretest. In the posttest, Tersobo 1 elementary school has an average score of 13.89 higher playing pianika skills compared to Sidogede 2 elementary school. The difference in the mean value of the pretest and posttest between the two schools shows that there are differences in students' pianika playing skills. The results of hypothesis testing using the t-test independent sample t-test and obtained sig results. 0.039 The difference in the mean value of the pretest and posttest between the two schools shows that there are differences in students' pianika playing skills. The results of hypothesis testing using the t-test independent sample t-test and obtained sig results. 0.039 The difference in the mean value of the pretest and posttest between the two schools shows that there are differences in students' pianika playing skills. The results of hypothesis testing using the t-test independent sample t-test and obtained sig results. $0.039 < 0.05$. The benefit of this research was to help teachers teach pianika playing skills and to help students develop pianika playing skills. The conclusion of this study there was a significant difference between students who get and do not get the pianika ensemble extracurricular.

Keywords: Musical Intelligence; piano ensemble extracurricular; piano

1. INTRODUCTION

This research is motivated by the problems found during the pre-study. Based on pre-research interviews, the fifth grade teacher at SDN 2 Sidogede said that the majority of fifth grade students' abilities in music were more developed in the realm of theoretical knowledge than the practice of playing the piano. Students understand scale material such as concepts and types of scales theoretically, but have difficulty applying it in playing the piano or are less skilled at playing the piano. Whereas in Permendikbud Number 37 of 2018, teachers must provide knowledge of musical material theoretically (scales) and musical practice (playing the piano). However, the fact is that students receive SBdP music learning with more theoretical learning duration than practice, even though the practice material for playing piano is very limited in number in SBdP learning books so that learning is not necessarily done every week.

Polivanova's research (2016) entitled "Children's Extracurricular Activities" explains that extracurricular activities have a positive relationship

with students' academic performance. The higher the student's academic achievement, the more extracurricular activities he has participated in with adult guidance.

Eka Yulyawan Kurniawan's research (2018) entitled "Character Education in Drumband Extracurricular Activities at Mekarsari II State Elementary School Tangerang Regency" shows that music extracurriculars such as drumbands can not only grow various character values in students but also directly develop student skills. Hughes' research (2016) with the title "Indirect Effect of Extracurricular Participation on Academic Adjustment via Perceived Friend's Prosocial Norms" shows that student participation in extracurricular activities shows higher levels of academic achievement and motivation. It is deeply regretted, only SDN 1 Tersobo conducts music extracurricular in the form of piano ensemble extracurricular to develop students' piano playing skills, while other schools rely on music learning in SBdP. One of the reasons is the school has not been able to facilitate all students with piano so students must have their own piano however, many guardians of their economic students are in lower-middle

conditions so they are burdened if students are required to have their own piano.

Based on interviews, the majority of teachers said they were less skilled in teaching the practice of playing musical instruments such as the piano because the teacher's educational background was a classroom teacher, not a music teacher. Whereas Rakhmat Harjono and Abdul Rachman (2018) in a study entitled "Teacher Creativity in Extracurricular Learning of Keroncong Music at SMP Negeri 1 Karangmoncol" shows that what is needed in music learning is the creativity of teachers in teaching music material.

Muhamad Azwar Anas' research (2016) entitled "Improving Musical Intelligence in SBK Learning Using Angklung Musical Instruments in Class IVB SD Negeri Sinduadi 1" explained that the skills of playing musical instruments should begin to be developed when students are at the effective age of 6-12 years so that it will reduce the risk of tone and rhythm tuna that can be experienced student. The development of piano playing skills can also affect the value of music learning in SBdP.

Agnes Ros Morente, Salvador Oriola-Requena, Josep Gustems Carnicer, and Gema Filella Guiu (2019) in their research entitled "Beyond Music: Emotional Skills and Its Development in Young Adults in Choirs and Bands" show that playing musical instruments such as ensembles provides influence on students' personal and skill development. Piano playing skills are one way to improve musical intelligence, because according to Howard Gardner (in Shoimatul Ula, 2013: 94-95), musical intelligence is the ability to develop, express, and enjoy musical forms, such as sensitivity to rhythm, melody, and rhythm. notation, the ability to play musical instruments, sing and compose songs, and the ability to enjoy songs.

Tiya Setyawati, Alis Triena Permanasari, and Tri Cahyani Endah Yuniarti's research (2017) entitled "Improving Musical Intelligence Through Playing Angklung Musical Instruments (Action Research on Children Group B Ages 5-6 Years in TK Negeri Pembina Kota Serang-Banten)" shows that playing a musical instrument such as angklung with a tempo from slow to fast and according to the scale, can make students who are not skilled at playing angklung become agile in playing angklung, able to adjust to tone, rhythm, and tempo so that they can improve their musical intelligence.

This theory is relevant to Sri Handayani, Purwadi, and Dwi Prasetyawati's research (2018) entitled "Efforts to Improve Early Childhood Musical Intelligence through Angklung Traditional Musical Instrument Games in Children Group B RA Semarang Character" which explains that playing musical instruments can make students creative. and innovative in enjoying music, sensitive to music such as being able to remember rhythm, tone and harmony so that it can affect his musical intelligence.

Rini Hidayatillah, Yuhasriati, and Johari Efendi (2017) in a study entitled "Developing Children's Musical Intelligence Through Traditional Musical Instruments at Cinta Ananda PAUD" also showed that students were more sensitive to rhythm when learning to play musical instruments such as the tambourine which they played by hitting them to produce the appropriate rhythm.

Based on the theory and empirical described, researchers are interested in conducting comparative research to compare students' piano playing skills because piano playing skills are one way to develop musical intelligence (Gardner in Shoimatul Ula, 2013:94). Researchers compared piano playing skills based on the presence and absence of extracurricular piano ensembles and measured piano playing skills using indicators of tone accuracy and rhythmic accuracy. The purpose of this study was to identify significant differences between the musical intelligence of students who received and did not receive extracurricular piano ensembles.

2. RESEARCH METHOD

This study uses a quantitative approach. The research design used is a comparison or comparison with the pretest-posttest design, aiming to measure the comparison of two different variables. According to Nazir (in Teaching Materials for State University PGSD Education Research Methods Semarang, 2018:45), comparative research is research that analyzes the factors causing the occurrence of certain phenomena to find answers on a fundamental basis about causation.

The population of class V students in this study was 154 students. The research sample was taken using a purposive sampling technique, consisting of class V at SDN 1 Tersobo as class A (getting piano ensemble extracurriculars) and SDN 2 Sidogede as class B (not getting piano ensemble extracurriculars). The independent variable in this study was the piano ensemble extracurricular, while the dependent variable was the musical intelligence of the students. Data collection techniques used piano playing skills tests, interviews, and documentation. The instrument test for playing piano skills is in the form of a validity test and a reliability test from the performance assessment.

The analysis technique consisted of pre-study data analysis, initial data analysis, and final data analysis. The pre-study data analysis is normality test and homogeneity test, initial data analysis is normality test and homogeneity test, while the final data analysis is normality test, homogeneity test, and hypothesis testing. Hypothesis testing was carried out with the aim of knowing whether or not there were significant differences from the research data. The calculation of the hypothesis test or t test is carried out using *independent sample t-test* with the

help of SPSS 21. In calculations *independent sample t-test* when line *Equal variances assumed* show sig (2-tailed) < 0.05 then $H\alpha$ is accepted.

3. RESEARCH RESULT AND DISCUSSION

The results of the comparative study of musical intelligence of students who get and do not get extracurricular piano ensembles broken down into the following:

Description of Music Learning (Treatment)

This research music learning activity was carried out for two meetings, because the songs that the researchers used to teach piano playing skills were songs that were familiar to students. Music learning activities are carried out in an allocated time of \pm 20-45 minutes by providing short scale and rhythmic material, reading notation, and practicing piano playing. Music learning activities in class A and class B are carried out using the same teaching methods and materials.

a. Theoretical

The teacher conducts questions and answers about scales including concepts, types, and characteristics of the types of scales, and classifies the songs used in the study (Menhening Cipta, Indonesia Raya, and Gundul Pacul) by type. Then, students listen to the different pieces of the piano playing from songs with different pitch lengths and then relate them to rhythmic material. After that, students are guided to play rhythmically by tapping their feet.

b. Reading Notation and Practice Playing the Piano

In reading notation activities and practicing piano playing, students are guided to identify the notes on the sheet music to be used, such as high and low notes line by line, as well as the location of certain notation keys such as the "f" notation in the song Menheningan Cipta. Then apply the number notation in the sheet music learned on the piano keys line by line, without blowing the piano. Students are also guided to play rhythmically from the songs learned by tapping their feet, then playing the piano line by line of the scores of the three songs repeatedly while tapping their feet with or without music accompanied by regular clapping by the teacher.

Comparison of Musical Intelligence Based on Piano Playing Skills

Gardner (in S. Shoimatul Ula, 2013: 95) argues that people with prominent musical intelligence are very sensitive to tone, rhythm, melody, intonation, rhythm, sound color, singing, and playing musical instruments, so the musical intelligence that researchers compare in this study assessed from the skill of playing the piano with

measurement indicators in the form of tone accuracy and rhythmic accuracy. The value of playing piano skills in class A (getting piano ensemble extracurricular) and class B (not getting piano ensemble extracurricular) **obtained through the pretest and posttest which were conducted by means of students playing 3 songs in a row using the piano with the accompaniment of musical instruments without reading the notation.**

Tone Accuracy

In class A, the pretest data of the tone accuracy indicator was obtained from 9 students with an average of 73.14; standard deviation of 15.467; the lowest value is 58.33; and the highest score is 100. In class B, the pretest data for the tone accuracy indicator was obtained from 9 students with an average of 66.66; standard deviation of 10.208; the lowest value is 58.33; and the highest score is 91.67. Then the pretest value was analyzed using a frequency distribution and the results obtained in grade A students, out of 9 students there were 2 students who scored in the "Very Good" category, 2 students in the "Good" category, and 5 students in the "Enough" category. In class B, from 9 students there is 1 student who has a "Very Good" category and 5 students in the "Enough" category. The majority of grade B students often mispress the piano keys and are confused about the location of the notes on the piano keys.

In class A, the posttest data of the tone accuracy indicator was obtained from 9 students with an average of 87.96; standard deviation of 15.087; the lowest value is 58.33; and the highest score was 100. In class B, the posttest data obtained from 9 students with an average of 79.63; standard deviation of 11.110; the lowest value is 66.67; and the highest score was 100. After being calculated descriptively, the posttest scores were analyzed using a frequency distribution and data was obtained in class A, from 9 students there were 7 students who had a "Very Good" category score and 2 students who had a "Enough" category score. In class B, out of 9 students, 2 students scored in the "Very Good" category, 5 students in the "Good" category, and 2 students in the "Enough" category. This shows an increase in students' playing piano skills after being given treatment, both in class A and class B.

Rhythmic Accuracy

In class A obtained pretest data on rhythmic accuracy indicators from 9 students with an average of 68.51; standard deviation of 15.466; the lowest value is 50; and the highest score is 91.67. In class B, the pretest data for rhythmic accuracy indicators were obtained from 9 students with an average of 43.51; standard deviation of 10.847; the lowest value is 25; and the highest score is 58.33. The frequency distribution of the rhythmic accuracy pretest scores obtained data for class A students, from 9 students

there was only 1 student who had a "Very Good" category score, 3 students in the "Good" category, 3 students in the "Enough" category, and 2 students in the "Poor" category. . Meanwhile, in class B (did not get a piano ensemble extracurricular), from 9 students there was 1 student in the "Enough" category, 5 students in the "Less" category and 3 students in the "Very Poor" category. Students still have difficulty playing the piano, let alone accompanied by music.

In class A, the posttest data obtained from the rhythmic accuracy indicator from 9 students with an average of 77,778; standard deviation of 12,501; the lowest value is 58.33; and the highest score is 91.67. In class B, the posttest data on rhythmic accuracy indicators from 9 students with an average of 58,334; standard deviation of 16.666; the lowest value is 33.33; and the highest score was 75. Then the posttest scores were analyzed using a frequency distribution and data was obtained in class A, from 9 students there were 3 students who scored in the "Very Good" category, 3 students in the "Good" category, and 3 students in the "Enough" category. In class B, from 9 students there are 3 students who have a "Good" category, 2 students in the "Enough" category, 3 students in the "Less" category, and 1 student in the "Very Poor" category. This shows an increase in students' playing piano skills based on rhythmic accuracy indicators.

Normality test

The normality test of the data is carried out with the aim of knowing whether the data to be analyzed is normal or not. The normality test of the data in this study was carried out three times, namely to test the pre-study data in the form of SBdP learning outcomes for music art materials for class A and class B, the initial data from the research results in the form of pretest scores for playing piano skills, and the final data from the research results in the form of posttest scores. piano playing skills.

The normality test used was the Shapiro-Wilk test because the number of samples for each SD was 50 people. The data is said to be normally distributed if the value of Sig. in the Shapiro-Wilk column > 0.05 . The results of the calculation of the normality test of the pre-study data on the value of SBdP learning outcomes for the art of music show the results of sig. $0.147 > 0.05$ (class A) and sig. $0.287 > 0.05$ (class B). The initial data of the study were in the form of pretest scores in class A shows sig. $0.358 > 0.05$ and in class B shows sig. $0.369 > 0.05$. Meanwhile, the final research data in the form of posttest results in class A showing sig. $0.076 > 0.05$ and in class B shows sig. $0.209 > 0.05$. Based on the test results of the three data (pre-study, initial research data, and final research data), it can be said that the data are normally distributed.

Homogeneity Test

Homogeneity test is conducted to determine whether or not there is a similarity of variance in a population. The homogeneity test of this research was carried out three times, namely to test the pre-study data in the form of SBdP learning outcomes for music art materials for class A and class B, the initial data from the research results in the form of pretest scores for playing piano skills, and the final data on the results of the study in the form of posttest scores for playing skills. piano.

Homogeneity test was carried out using Levene's test on SPSS 21. The data is said to be homogeneous if the value of Sig. > 0.05 . The results of the homogeneity test calculation, the pre-study data on the value of the SBdP learning outcomes for music art class A and B showed sig. $0.253 > 0.05$. The initial data of the study in the form of the pretest scores for playing piano skills for class A and class B showed sig. $0.051 > 0.05$. Meanwhile, the final data of the study was in the form of posttest scores for piano playing skills for class A and class B .show $0.671 > 0.05$. Based on the test results of the three data (pre-study, initial research data, and final research data), it can be said that the data are homogeneous.

Hypothesis testing

The purpose of the t test is to determine whether or not there is a significant difference from the research data after being given treatment or treatment. The data used for the t-test is the value of the posttest results of piano playing skills for class A and class B. The t-test was carried out using the Independent sample t-test through SPSS 21.

Based on the calculation results of independent samples t-test shows the value of t-test 2,252 has a sig (2-tailed) 0,039. Significance $0,039 < 0.05$ then H_0 accepted. That is, there is a significant difference in the musical intelligence of students who get and do not get extracurricular piano ensembles. Therefore, to develop musical intelligence to the maximum, activities that can stimulate and hone students' musical intelligence are needed. Evidently, students who get extracurricular piano ensembles understand the location of each note on the piano keys so that it is easy to move from one note to another when playing the piano and play with the right tone and rhythm. Students are more sensitive to the accompaniment of the song instrument to be played so that they know when to start playing the piano when playing a song.

Meanwhile, students who do not get extracurricular piano ensemble do not understand the location of some notes on the piano keys so that they are confused about playing the notes and must first find the location of the notes and must be assisted by attaching number notation writing on the piano keys when playing piano. Students become left behind playing songs with the piano and lose notes in the

middle of the game so that students have not played the right notes and rhythms. Students are less sensitive to the accompaniment of musical instruments from the songs to be played, so they often start the piano game wrong, precede or lag behind the musical instrument. Students rush to play the notes so that they do not match the rhythm of the song being played.

4. CONCLUSION

Based on the results of the study, the piano playing skills of SDN 1 Tersobo students were higher than those of SDN 2 Sidogede. The results of the pretest of playing piano skills at SDN 1 Tersobo have an average value of tone accuracy of 8.33 which is higher than the average value of tone accuracy of SDN 2 Sidogede. Meanwhile, the posttest results of SDN 1 Tersobo also have an average value of tone accuracy of 8.33 which is higher than the average value of tone accuracy of SDN 2 Sidogede. On the indicator of rhythmic accuracy, SDN 1 Tersobo has an average pretest score of 25.92 which is higher than the average pretest value of SDN 2 Sidogede. Meanwhile, the posttest results of SDN 1 Tersobo have an average value of 19.44 rhythmic accuracy higher than the average value of rhythmic accuracy of SDN 2 Sidogede. From the results of the pretest and posttest, *independent samples t-test* and get sig result. $0.039 < 0.05$. This means that there is a significant difference between students who get and do not get extracurricular piano ensembles.

Students of SDN 1 Tersobo understand the location of each note on the piano keys so that it is easy to move from one note to another and is more sensitive to the accompaniment of musical instruments from the song to be played so that they know when to start playing the piano when playing a song. Meanwhile, the students of SDN 2 Sidogede did not understand the location of the notes on the piano keys well so they were confused and left behind when playing songs. Students are less sensitive to the accompaniment of musical instruments from the songs to be played, so they often start the piano game wrong, precede or lag behind the musical instrument. Students rush to play the notes so that they do not match the rhythm of the song.

5. REFERENCES

- (Tim Dosen PGSD UNNES). 2018. Bahan Ajar Metode Penelitian Pendidikan Guru Sekolah Dasar UNNES. Semarang: Universitas Negeri Semarang.
- Anas, Muhamad Azwar. 2016. Peningkatan Kecerdasan Musikal Dalam Pembelajaran SBK Menggunakan Alat Musik Angklung Pada Siswa Kelas IVB SD Negeri Sinduadi 1. *Jurnal Pendidikan Guru Sekolah Dasar*, edisi 33 Tahun ke-5, 3.154-3.163.
- Handayani, Sri, dkk. 2018. Upaya Meningkatkan Kecerdasan Musikal Anak Usia Dini Melalui Permainan Alat Musik Tradisional Angklung Pada Anak Kelompok B RA Karakter Semarang. *Jurnal Ilmiah Mahasiswa Pendidikan Anak Usia Dini*, 7(2), 96-109.
- Harjono, Rakhmat, dkk. 2018. Kreativitas Guru Dalam Pembelajaran Ekstrakurikuler Musik Keroncong Di SMP Negeri 1 Karangmoncol. *Jurnal Seni Musik*, 7(1), 34-47.
- Hidayatillah, Rini, dkk. 2017. Mengembangkan Kecerdasan Musikal Anak Melalui Alat Musik Tradisional Di PAUD Cinta Ananda. *Jurnal Ilmiah Mahasiswa Pendidikan Anak Usia Dini*, 2(2), abstrak. <http://garuda.ristekbrin.go.id/documents/detail/610228> (diakses tanggal 3 februari 2020).
- Hughes, Jan N., Cao, Qian., & Kwok, Oiman. 2016. Indirect Effects of Extracurricular Participation on Academic Adjustment via Perceived Friends' Prosocial Norm. *Journal of Youth and Adolescence*. 45, 2260-2277.
- Kurniawan, Eka Yulyawan. 2018. Pendidikan Karakter Dalam Kegiatan Ekstrakurikuler Drumband Di Sekolah Dasar Negeri Mekarsari II Kabupaten Tangerang. *Jurnal Pendidikan dan Kajian Seni*, 3(2), 109-120.
- Mentari, Eca Gesang, dkk. 2019. Manajemen Pengembangan Pendidikan Anak Usia Dini Dilengkapi Manajemen Perpustakaan dan Ekstrakurikuler. Temanggung: Desa Pustaka Indonesia.
- Morente, Agnes Ros., Requena, Salvador Oriola., Carnicer, Josep Gustems., Guiu, Gema Filella. 2019. *Beyond Music : Emotional Skills and Its Development in Young Adults in Choirs and Band*. *International Journal of Music Education*, 37(4), 536-546.
- Permendikbud Nomor 37 Tahun 2018 tentang Kompetensi Inti dan Kompetensi Dasar Kurikulum 2013

- Polivanova, K.N., Lebedev, M. V., & Sivak, E. V. 2016. Children's Extracurricular Activities. *Russian Education & Society*. 58 (9-10), 3-6.
- Setyawati, Tiya, dkk. 2017. Meningkatkan Kecerdasan Musikal Melalui Bermain Alat Musik Angklung (Penelitian Tindakan Pada Anak Kelompok B Usia 5-6 Tahun di TK Negeri Pembina Kota Serang-Banten). *Jurnal Pendidikan dan Kajian Seni*, 2(1), 63-77.
- Ula, Shoimatul. 2013. *Revolusi Belajar: Optimalisasi Kecerdasan Melalui Pembelajaran Berbasis Majemuk*. Yogyakarta: AR-RYZZ Media.
- Yuwono, Praktik Hari. 2016. Pengembangan Intelegensi Musikal Siswa Melalui Pembelajaran Musik Di Sekolah. *Jurnal Khazanah Pendidikan*, 10(1).