THE ABILITY EFFECT IN PLAYING RECORDER TO ACCURACY OF TONE IN SINGING FOR STUDENTS AT SDN PAKIS II

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ABSTRACT

Child who often hears melody and rhythm through the recorder music which they play will give a tone image in the child's mind or his/her imagination so that they can help the child sing well. Hence the recorder is a tool for children who cannot sing directly. Based on above statements, the author is more motivated to do research about "The Ability Effect in Playing Recorder to Accuracy of Tone in Singing for Students at SDN PAKIS II." The research data shows that there is a child who able to play recorder and also able to sing with the right tone. The factor that causes the child able to sing in the right tone is because the child often hears the notes he plays through the music recorder.

Keywords: Recorder, Tone Accuracy, SDN Pakis II

INTRODUCTION

From ancient time until now, music is one of the human need. Music is needed both as a group, for example at the party or certain events or in people’s personal life.

Music has an important role in human life. Through music, humans can express their personal feelings. Besides that, it can also develop children's sensitivity to their environment. But the effort to know or to learn music is not as easy as we imagine, because music requires mind and feeling (Sunarko 1989: ii).

That is why the way how to teach music need to be improved effectively. Teaching music must be adapted to the level of understanding and child ability. Elementary school is the first education level, so it needs to be taught a strong foundation as a personal formation so that it can be improved at a higher level.

MPR Decree No. IV of 1999 concerning GBHN emphasized: "Empowering educational institution both school and
outside of school as the center of learning value, attitude and ability, and furthermore, increasing family and society participation supported by proper facility and infrastructure” (1999: 32) 

Tap MPR No. IV tahun 1999 tentang GBHN menegaskan:

The quote above shows that the role of education since childhood is very important. Music education helps to achieve the goals of national education, because music education can instill politeness and sociality, moreover feeling of love and dedication to the homeland also a sense of worship to Allah who is the creator of sky, earth and everything in it.

Music art is a part of the art field where the expression or presentation such as using a musical instrument. M. Suharto in his book "Membina Paduan Suara dan Group Vokal" states three ways of presenting music:

First, vocally, namely using the vocal cord in our mouth as a sound source. This kind of method is called singing. The second type is the instrumental, namely using a musical instrument to produce a tone or sound. If there is a third way, so this is a combination of the two methods above. The three ways of presenting music above each has rules in the form of expression using rhyme and melody whether it is using accompaniment or without accompaniment. Similarly with instrumental music where the expression uses the sound of the music itself.

Drs. Jamalus in his book "Pengajaran Musik Melalui Pengalaman Musik" states that the meaning of music is:

"Music is an artwork in the form of a song or musical composition, which expresses the thought and feeling of the creator through musical elements, namely rhythm, melody, harmony, form / structure of song and expression as a whole". (1988: 1)

Likewise, singing in child world is one of the activities which is fun because by singing children can express their feelings that they experience.

Awuy Y.E.A et al in his book "Pelajaran Seni Musik Praktis
untuk SMP dan sederajat” states human generally has musical feeling that is not limited to one ethnic group or nation. (1980: 103)

Based on the experience and reality, generally, normal children can learn to sing, but some are fast and some are slow. Besides that, there are children who can sing but tend to use the wrong tone (falsetto).

Drs. Jamalus in his book ”Pengajaran Musik Melalui Pengalaman Musik” states that singing is an activity to express mind and feeling through tone and words.

Drs. Jamalus also states that the experience of hearing and imitating voice who children often do will give them ability to sing so that they can sing some songs quite well.

The recorder is one of aerophone because it requires air to produce sound. The recorder is a melody instrument which is easy to play and affordable.

Brocklehurs (1974) in the book entitle ”Pendidikan Kesenian I” states that: "The memory of tone image is one of the things that is very important in musical ability and it is the basic requirement for all musical activities (1991: 121).

Research Purpose

The general purpose of this research is:
To find out whether by having the ability to play a recorder, children can sing in the right tone.

Meanwhile, the specific purpose of this research is:
1. To analyze the effect of ability in playing recorder as a variable (X) with the accuracy of tone in singing as a dependent variable (Y) at SDN Pakis II
2. To analyze the strength between ability to play recorder as an independent variable (X) and the accuracy of tone in singing as a dependent variable (Y) at SDN Pakis II

METHODOLOGY
1. Research Method
In this research, the method used is the experimental method, which is done by using X O pattern; X is the treatment; O is the result of observation after treatment. (Arikunto, p. 67).
In the treatment activity, it is taught about how to play the recorder music. After that, it is followed by observation with doing an accuracy test of tone in singing. The experiment is done in group of students, each of them with the same activity.

2. Research Technique
Collecting data in this study uses direct observation and ability test. Data processing is done using correlational analysis technique.

The formula is as follows:

\[ r_{XY} = \frac{\eta \sum XY - (\sum X)(\sum Y)}{\sqrt{\eta \sum XY - (\sum X)^2}(\eta \sum Y - (\sum Y)^2)} \]

(Arianto, 1998:256)

Data Collection Technique

1. Data Collection tool
   a). The data collection tool for variable Y is ability to play recorder, using ability test to play melody of a simple song.
   b). The data collection tool for Y variable is to test children’s ability to sing the tones produced by the recorder musical instrument.

2. Procedure
Data for variable X and variable Y are obtained by giving ability test. The steps are as follows:
   a). The researcher chose a song which is used as a measuring tool to obtain data by giving a predetermined score for objective assessment.
   b). Determined the length of time for the test according to the tempo, song bar and note value.
   c). Prepare a test tool
   d). Set the achieved score by each sample member.
   e). Getting a list of value or score that will be used as indicator of X and Y variables

For the application test of ability to play recorder to accuracy of tone in singing for SD Karuna Dipa Palu, the writer prepares two (2) different types of song model, namely easy song material and difficult song material.
1. For the first song is TUT WURI HANDAYANI as the easy song category.

2. The material of the second song is KE SEKOLAH as the difficult song category.

3. **Standard assessment**

   The song used for the test is "KE SEKOLAH" where the song contains 18 bars. In acquiring the test scores the writer gives a standard assessment, namely:

   1. If 16 - 18 bars are sung correctly the score is 9 - 10.
   2. If 13 - 15 bars are sung correctly the score is 7 - 8.9.
   3. If 10 - 12 bars are sung correctly the score is 5 - 6.9.
   4. If 7 - 9 bars are sung correctly the score is 3 - 4.9.
   5. If 4 - 6 bars are sung correctly the score is 1 - 2.9.
   6. If 1 - 3 bars are sung correctly the score is 0 - 0.9.

   It is done by dividing 5 steps according to the six sentences of the song as follows:

   The students play that song sentence 1 using a recorder. It is done repeatedly until they can play well.

   a. After they can play well, the students imitated the sound of recorder with above solmisation.
   b. If the students are fluent with solmisation, the students imitate the sound of recorder with spoken words of la - la - la.
   c. Before the students sing lyrics of song, they are trained to read verses and explain purpose of song.
   d. After reading well and correctly, and understanding the purpose of the song content, the students once again play it on the recorder, then replacing it by singing the song lyric according to the sound (tone) of the recorder.

2. **Song sentence II**

   Song sentence of II, III, IV, V, and V, the application procedure is same as the procedure of first song sentence.

   Before the six sentences of song are sung entirely, first, the six
sentences of song are played on recorder then the whole song is replaced by singing the lyrics.

**Population and Sample**

1. **Population**

Looking at from the number, the population in this study consisted of a certain number of elements (Arikunto p.91), namely the students from grade V of Karuna Dipa Elementary School, Palu.

2. **Sample**

In this study, sampling is done based on Purposive Sampling Technique (purposing sample) where the sample member is determined based on certain characteristic which is considered to have a close relationship with the population.

It means that students from grade V SD Karuna Dipa Palu, 30 students from 52 students are determined to be able to play the recorder by reading note.

Furthermore, the names of recorder players who are the samples in this study can be seen in the following table:

<table>
<thead>
<tr>
<th>NO</th>
<th>NAME</th>
<th>CLASS</th>
<th>GENDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Soni hermawan</td>
<td>V</td>
<td>Boy</td>
</tr>
<tr>
<td>2</td>
<td>Arif herlambang</td>
<td>V</td>
<td>Boy</td>
</tr>
<tr>
<td>3</td>
<td>Arie oktavia</td>
<td>V</td>
<td>Girl</td>
</tr>
<tr>
<td>4</td>
<td>Deri windajayanti</td>
<td>V</td>
<td>Girl</td>
</tr>
<tr>
<td>5</td>
<td>Sundari</td>
<td>V</td>
<td>Girl</td>
</tr>
<tr>
<td>6</td>
<td>Marlik suharlil</td>
<td>V</td>
<td>Girl</td>
</tr>
<tr>
<td>7</td>
<td>Giman priandoko</td>
<td>V</td>
<td>Boy</td>
</tr>
<tr>
<td>8</td>
<td>Akbar makruf</td>
<td>V</td>
<td>Boy</td>
</tr>
<tr>
<td>9</td>
<td>Egri maetana</td>
<td>V</td>
<td>Boy</td>
</tr>
<tr>
<td>10</td>
<td>Umi khoiroh</td>
<td>V</td>
<td>Girl</td>
</tr>
<tr>
<td>11</td>
<td>Kartinah sri utami</td>
<td>V</td>
<td>Girl</td>
</tr>
<tr>
<td>12</td>
<td>Iwan</td>
<td>V</td>
<td>Boy</td>
</tr>
<tr>
<td>13</td>
<td>Kustiah</td>
<td>V</td>
<td>Girl</td>
</tr>
<tr>
<td>14</td>
<td>Desi aria</td>
<td>V</td>
<td>Girl</td>
</tr>
<tr>
<td>15</td>
<td>Dea ananda</td>
<td>V</td>
<td>Girl</td>
</tr>
<tr>
<td>16</td>
<td>Sendy lulita</td>
<td>V</td>
<td>Girl</td>
</tr>
<tr>
<td>17</td>
<td>Iwan</td>
<td>V</td>
<td>Boy</td>
</tr>
<tr>
<td>18</td>
<td>Monadi</td>
<td>V</td>
<td>Boy</td>
</tr>
<tr>
<td>19</td>
<td>Luluk</td>
<td>V</td>
<td>Girl</td>
</tr>
<tr>
<td>20</td>
<td>Sudarmawan</td>
<td>V</td>
<td>Girl</td>
</tr>
<tr>
<td>21</td>
<td>Dwi retno putri</td>
<td>V</td>
<td>Girl</td>
</tr>
</tbody>
</table>
Data Analysis Technique

1. Data Analysis Tool

To process the data that has been collected, the Product Moment Correlation formula is used to determine the relationship between 2 interval symptoms. The formula is used because:

a) This research is a causal research.

b) Data on variables X and Y are acquired from the score who are achieved by each member of the sample through ability test, playing recorder and singing in the right tone.

2. The Use of Formula

The formula used in determining the correlation coefficient for variable X and Y in this study is:

\[ r_{XY} = \frac{\eta \sum XY - (\sum X)(\sum Y)}{\sqrt{\eta \sum X^2 - (\sum X)^2} \sqrt{\eta \sum Y^2 - (\sum Y)^2}} \]

where:
- \( r \) = X and Y correlation coefficient
- \( \eta \) = Sample Amount
- \( X \) = Ability to play musical instrument
- \( Y \) = The determination of pitch in singing

For significance testing, a formula is used which is a test of correlation coefficient to compare the measurement result of two different variables in order to determine the level of the relationship between these variables:

\[ t = \frac{r \sqrt{n - 2}}{\sqrt{1 - r}} \]

where:
- \( t \) = Distribution / percentile score
- \( \eta \) = Amount of sample member
- \( r \) = Correlation coefficient

(Sudjana, 1986 : 362)

With the acceptance criteria, for the real level \( \alpha = 0.05 \), thus, the hypothesis is accepted if:
\(-t(1 - \frac{1}{2} \alpha) < t < t(1 - \frac{1}{2} \alpha)\)

For high or low correlation coefficient, guidance is used according to (Guilford / Djamaludin Rachmat, 1985: 41 as follows:

Less than 0.20 the relationship is very low, very weak.

0.20 – 0.40 low but sure correlation

0.40 – 0.70 quite meaningful correlation

0.70 – 0.90 strong and high correlation

More than 0.90 correlation is very high, very strong, and reliable

RESULT AND DISCUSSION

1. Data Collection

The data is collected through an action test which is created by the researcher namely by presenting a new song that contained predetermined signs or form.

The variable that is studied through the test of ability to play recorder (X) and the test of ability to sing the song correctly (Y).

So the data is acquired through a capability test of 30 students and doing direct scoring.

2. Data Processing

The data in this study is divided into 2, namely the data of ability to play music recorder as X and Y are acquired based on ability test and these data can be tabulated as follows:

Table 3

<table>
<thead>
<tr>
<th>No</th>
<th>X</th>
<th>Y</th>
<th>XY</th>
<th>X²</th>
<th>Y²</th>
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<td>45.5</td>
<td>42.5</td>
<td>49.0</td>
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<td>6.5</td>
<td>39.7</td>
<td>37.2</td>
<td>42.3</td>
</tr>
<tr>
<td>3</td>
<td>7.7</td>
<td>7.6</td>
<td>58.8</td>
<td>59.3</td>
<td>57.8</td>
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<td>42.3</td>
</tr>
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<td>6</td>
<td>6.5</td>
<td>6.9</td>
<td>44.9</td>
<td>42.3</td>
<td>47.6</td>
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<tr>
<td>7</td>
<td>7.6</td>
<td>7.6</td>
<td>57.8</td>
<td>57.8</td>
<td>57.6</td>
</tr>
<tr>
<td>8</td>
<td>6.0</td>
<td>6.5</td>
<td>42.6</td>
<td>36.0</td>
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</tr>
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<td>7.8</td>
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<td>46.1</td>
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</tr>
<tr>
<td>Total</td>
<td>210,3</td>
<td>211,2</td>
<td>1488,1</td>
<td>1484,3</td>
<td>1497,7</td>
</tr>
</tbody>
</table>

Data for variables X and Y are acquired based on ability test and these data can be tabulated as follows:
variable and consistency of tone in singing as Y variable.

Statistical test in hypothesis testing is done using product moment correlation analysis, the formula is as follows:

\[
 r_{XY} = \frac{\eta \Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{(\eta \Sigma X^2 - (\Sigma X)^2)(\eta \Sigma Y^2 - (\Sigma Y)^2)}}
\]

Information:
- \( r \) = correlation coefficient
- \( \eta \) = amount of respondent
- \( X \) = variable of recorder playing ability
- \( Y \) = variables of pitch accuracy in singing

From table 3 is acquired of result as follows:

Computation:
\[
\begin{align*}
XY &= 1488,1 \\
X &= 210,3 \\
Y &= 1484,3 \\
\eta &= 1497,7 \\
\eta &= 30
\end{align*}
\]

\[
 r_{XY} = \frac{\eta \Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{(\eta \Sigma X^2 - (\Sigma X)^2)(\eta \Sigma Y^2 - (\Sigma Y)^2)}}
\]

\[
 r_{XY} = \frac{(30 \times 1488,1) - (210,3 \times 211,2)}{\sqrt{(30(1494,3) - (210,3)^2)((30 \times 1497,7) - (211,2)^2)}}
\]

The analysis result is acquired \( r \) (degree of correlation) of 0.78. From this number is acquired \( r^2 \) (determining power) of 0.61. The result shows that there is a degree of 0.78 between the ability to play recorder (X) and the ability to sing according to the sound which is played (Y).

Furthermore, testing the significant level of acceptance or rejection of hypothesis regarding whether there is a correlation of 2 variables, then the correlation coefficient "r" that is acquired and transformed into the "t" value (Student distribution equation), the formula is as follows:

\[
 t = \frac{r \sqrt{\eta - 2}}{\sqrt{1 - r}}
\]

By accepting criteria of \( H_0 \) if \( -t_{1-1/2\alpha} < t < t_{1-1/2\alpha} \), it is acquired from the distribution list of
t with chance of \((1 - 1/2 \alpha)\) and \(dk = (n-1) o\)

Information:
- \(t\) = distribution
- \(\eta\) = amount of respondent
- \(r\) = correlation coefficient

The value of "\(r\)" after being transformed into the formula "\(t\)" is acquired:

\[
\begin{align*}
    t &= r\sqrt{\eta - 2} \\
    &= \frac{0.78\sqrt{30 - 2}}{\sqrt{1 - 0.78}} \\
    &= \frac{0.78 \times 5.29150}{0.4690} \\
    &= 8.80036
\end{align*}
\]

Based on statistical calculation, the result is acquired as follows:
1. \(r = 0.78\)
2. \(r^2 = 0.61\)
3. \(t = 8.8\)
4. To determine the level of truth, a significant measure of the "\(t\)" list is used with the degree of freedom "30" and the result is: \(dk = n-2 = 30-2 = 28\) (chance distribution) = 0.05

\(th = 8.8\)

It is acquired level of confidence = 1 - (1/2 X 0.05) = 0.975
\(tk = 2.05\)

Thus, the \(t\) value is calculated from \(t\) criteria:
-2.05 <8.8> 2.05

Based on the hypothesis testing criteria, it states that if \(t\) count is greater than - \(t\) criteria and \(t\) count is less than \(t\) criteria, then the null hypothesis is acquired. This analysis shows that \(t\) count is greater than -\(t\) (1-1 / 2\(\alpha\)) and greater than \(t\) (1-1 / 2\(\alpha\)) or (-2.05 <8.8> 2.05). From this result it can be concluded that the null hypothesis is rejected and the alternative hypothesis is accepted.

3. Discussion of research result

The data result analysis is acquired a correlation coefficient (degree of connection) \(\rho = 0.78\); determination coefficient \((r^2) = 0.61\) (quite meaningful correlation). This result shows the strength of correlation between the variable of ability to play music recorder (X) to singing accuracy (Y) for students at Karuna Dipa Palu Elementary School is 78%. Meanwhile, the measurement of
determining ability to play recorder to consistency tone in singing for students at Karuna Dipa Palu Elementary School is 61%. The level of significance is $@ = 0.05$ $(0.95)$ $tk = 2.05$ and $th = 8.8$. This result shows the strength of connection and the power of determination between the variable of ability to play recorder with the accuracy of tone in singing for students in Karuna Dipa Palu Elementary School is very significant at 95% trust level ($@ = 0.05$). The result of this study relates to the opinion of Drs. Jamalus who states "Music theory lesson must be given through the sound of music itself, so that children can hear the music sound, understanding musical scale, interval and chord" (1991/1992: 120)

This opinion shows that music theory and musical practice must be in line. Where the more children play on recorder, the easier for them to understand deeply and learn the musical scale.

By the result $(r^2) = b 0.61$ explaining that the accuracy of tone in singing for children is determined by the ability to play recorder is 61%, while 39% of other increase is determined by other factors which do not analysed, such as:

- Frequency of practice.
- Frequency of listening to music.

CONCLUSION AND SUGGESTION

1. Conclusion

a. From the result of analysis and processing data, it is found that $t$ count > $t$ criteria or $t$ count is greater than - $t$ criteria. Thus, the hypothesis that states; There is a significant influence between the ability to play recorder to the consistency of singing for SDN Pakis II students which is accepted at a significant level of 0.95%.

b. The level of ability to play recorder is very determined to consistency of tone in singing where the determination is $= 61\%$, it means there is a significant correlation. Thus, the ability to play recorder has a dominant influence to consistency of tone in singing
of SDN Pakis II students, and the rest is influenced by other factors such as:
- Frequency of practice.
- Frequency of listening to music.

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