The Effect of Emotional Intelligence on Music Art Learning Performance Mediated by Motivation

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Abstract—Studies show that Intelligence Quotient (IQ) does not guarantee success in life. The discovery of Emotional Intelligence (EQ) addresses the issues related to people with high IQ, while motivation is an intrinsic factor that helps a person achieve optimal learning performance. This research aims to determine the effect of emotional intelligence on the music art learning performance mediated by motivation. The study was conducted using a survey method with path analysis techniques. The research sample consisted of 148 students of State Senior High School I Sausapor, Tambrauw Regency in West Papua Province, Indonesia. The results showed that emotional intelligence significantly affected music learning performance, specifically by 60.1%. Also, learning motivation significantly mediated the effect of emotional intelligence on music art learning performance by 95.1%. Music art is one of the lessons in schools that help understand a person's emotions. With this research, it is hoped that every school will be moved to cultivate the emotional intelligence of its students in order to get the right formula in building their learning motivation.

Keywords—Emotional intelligence; learning motivation; learning performance; music arts.

I. INTRODUCTION

As an expanded part of the Sorong Regency in West Papua, Tambrauw regional head needs to prioritize basic infrastructure. The provision of educational facilities and infrastructure in remote areas is currently the most important thing in education. Apart from the Regency, the districts and villages also expanded, emphasizing the need to improve educational services. For instance, there was a 100% increase in villages from 106 to 216 in each district. However, not all villages have schools, especially senior high schools. This is because the Tambraw Regency government construct high school schools only in strategic places that can be accessed quickly and equitably.

The learning process in school is complex and comprehensive. Many people think that a person needs a high Intelligence Quotient (IQ) for good performance. This is because intelligence facilitates learning and optimizes performance. For instance, the performance of students does not match their intellectual abilities. Some with high intellectual abilities attain relatively low learning performances, while others do better. Emotional Intelligence (EQ) is considered to be the answer to this mismatch. Daniel Goleman's theory provides a new definition of the word smart. Although EQ is relatively new compared to IQ[1], several studies show that emotion is equally important as IQ. According to Daniel Goleman, emotion refers to typical feelings and thoughts, biological and psychological states, as well as a set of tendencies to act. Essentially, it is the urge to act and is usually reactions to stimuli from outside and inside the individual. For example, happy and sad emotions urge someone to laugh or cry[2]. Definitively, EQ is a person's ability to regulate emotional life with intelligence. Maintaining emotional harmony and expression can be carried out through self-awareness, self-control, self-motivation, empathy, and social skills[3].

Intelligence and emotions are essential in the learning process. IQ may not function properly without emotional involvement in classroom subjects[4]. EQ includes different abilities but affects academic intelligence. People cannot fully use cognitive abilities without EQ, which helps attain success.
in school and enhance communication in the community. The term "emotional intelligence" was first coined in 1990 by psychologists Peter Salovey from Harvard University and John Mayer from the University of New Hampshire to explain that emotional qualities appear is critical to success. Salovey and Mayer define emotional intelligence (EQ) as "a set of social intelligence that involves the ability to monitor social feelings that include abilities in others, sort them out and use this information to guide thoughts and actions."[5] 

Apart from being dynamic and not permanent, emotional intelligence is significantly influenced by the environment. Therefore, the role of the environment, especially parents, in childhood significantly affects emotional intelligence. However, EQ skills are not the opposite of IQ or cognitive skills. They interact dynamically at a conceptual level and real-world but are less influenced by heredity. In addition, emotional maturity can create harmonization in the sphere of life social, how to behave to many people with various behaviors, from very unpleasant to attitude, that attitude pleasant[6].

According to Goleman, emotional intelligence is a person's ability to regulate emotional life with intelligence. Maintaining emotional harmony and expression can be conducted through self-awareness, self-control, self-motivation, empathy, and social skills.

Motivation is one of the psychological aspects that affect learning performance. In psychology, the term motive is often distinguished from motivation. The word "motive" is defined as an effort to urge someone to do something. Sardiman, in the book Psychology Understanding of Human Behavior, stated that motive is the behavior or action of a goal or stimulant[7]. According to Nasution, the motive is all the forces that urge someone to do something[8]. In other words, it is an impulse or strength from within individuals that move them to do something.

According to Dimyati and Mudjiono, learning performance can be perceived from students' and teachers' perspectives[9]. From the students' side, performance is a mental development that is better than the moment before learning. It is manifested in cognitive, affective, and psychomotor fields. From teachers' perspective, it is better mental development of the lesson.

Indonesia's national education aims to foster students' potential and help them believe and fear God Almighty, have a noble character, and be healthy, knowledgeable, capable, creative, independent, and responsible democratic citizens. To achieve this goal in the secondary education curriculum, there is a need to enhance cultural arts education with music as sub-materials.[10] The word 'music' comes from the Greek "Musike Techne." According to the Great Dictionary of Miriam-Webster, music means a composition or combination of sounds. The composition is a mix of different sound frequencies in a tonal interval. In the Complete book Idiot's Guide to Music Theory, Miller stated that "Music is a series of tones arranged in a certain rhythm."[11] According to Schneek and Berger in the book The Music Effect, the term "music" refers to a specific combination of sound attributes embedded in traditionally considered Six Elements of Music[12]: rhythm, melody, harmony, timbre, dynamics, and form.

The music in Tambrauw has a significant influence on the culture and education of the local community. In this regency, music is founded on the local community beliefs, where most people are Christians. For this reason, music is very close to children. The existence of ecclesiastical music used in every Christian worship is informal learning accepted by the community[13]. The influence of music is felt in vocal music and the use of traditional musical instruments, including bamboo and tifa. Music plays a critical role in changing the culture of the community and makes it more developed. As a means of praising God, it has a very big role in people's lives with good musical abilities. Praises and faith in God are often expressed in Churches through Vocal Groups, Choirs, and Solis.

According to researchers from the University of California, music may increase intelligence when started at an early age (read: reasoning and thinking) in the long run. The results of this research attracted attention and as a result, The Mozart Effect Book of Don Campbell (1997), The Magazine Digest (February 1997), Daily London Sunday Times (October 1997), and D&R magazine (No. 12 / XXIX / 8, November 1997) were moved to inform the public.

D Johan stated that music plays a significant role in education because it is the only discipline that can penetrate the soul to transcend rhythm and harmony[14]. Music has been linked to the capacity to increase emotional sensitivity. The recognition of emotions in music is related to emotional intelligence[15] Engagement with music can enhance self-perceptions but only if it provides positive learning experiences which are rewarding. This means that musical experiences need to be enjoyable providing challenges which are also attainable. Teaching needs to generate an environment which is supportive and sufficiently flexible to facilitate the development of creativity and self-expression.[16] Music requires the ability to regulate emotions and turn them into positive enthusiasm or energy. For this reason, emotional intelligence needs to complement motivation and learning talents.

II. METHOD

The study was conducted using a survey method with path analysis techniques. The survey method is intended to obtain empirical data from each variable studied in a relatively concurrent period. There was no need for any control group treatment as was carried out in the experimental furthermore, Emotional Intelligence (X1) was used as the independent variable, learning motivation (X2) as the Moderator variable, and Music Learning Performance (Y) were used as independent, moderator and dependent variables, respectively.[17]

Referring to the Morgan table, with a population of 240 class XI students of State Senior High School I Sausapor, a
A sample of 148 students was obtained. The scale method was used in data collection, where information is obtained using written statements or questions submitted by respondents. Furthermore, this research used emotional intelligence and learning motivation questionnaires, each with 30 questions and a documentation method to determine the music art learning performance.\[18\]

A simple regression data analysis was used to determine the effect of emotional intelligence and learning motivation on performance. The analysis calculation was enhanced by the SPSS 24.0 for Windows program.\[19\]

### III. FINDINGS AND DISCUSSION

**A. The results of regression I test with emotional intelligence as the independent variable and music art learning performance as the dependent variable**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>775(^\ast)</td>
<td>601</td>
<td>598</td>
<td>9.420</td>
</tr>
</tbody>
</table>

\(^\ast\) Predictor (Constant) EQ

Adjusted R Square shows the coefficient of determination or the role of the variance (the independent variable in relation to the dependent variable). The Adjusted R-square figure of 0.601 shows that 60.1% of music art learning performance can be explained by emotional intelligence. Other factors explain the remaining 39.9%.

### TABLE II. SIGNIFICANCE OF THE F VALUE FOR REGRESSION MODEL I

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Square</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>18146.696</td>
<td>1</td>
<td>18146.696</td>
<td>204.515</td>
</tr>
<tr>
<td>Residual</td>
<td>12067.304</td>
<td>136</td>
<td>88.730</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30214.036</td>
<td>137</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^\ast\) Predictor (Constant) EQ

### TABLE III. SIGNIFICANCE OF THE T VALUE FOR REGRESSION MODEL I

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficient</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig</th>
<th>R</th>
<th>Adjusted R Square</th>
<th>Std Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std.Error</td>
<td>T</td>
<td>Sig</td>
<td>Beta</td>
<td>Tolerance VIF</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>8.554</td>
<td>4.126</td>
<td>2.073</td>
<td>0.040</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EQ</td>
<td>0.729</td>
<td>0.051</td>
<td>0.775</td>
<td>14.301</td>
<td>0.000</td>
<td>1.000</td>
<td></td>
</tr>
</tbody>
</table>

The regression equation obtained is \( Y = 8.554 + 0.729 \).

The F-count value obtained is 204.515 with a significance level of 0.000 less than 0.05. This shows that emotional intelligence affects the music art learning performance. Furthermore, the T-count value shows emotional intelligence of 14.301 with a significance level of 0.040 and a regression coefficient of 0.729. This means that emotional intelligence has a positive and significant effect on music learning performance.

**B. The results of regression II tests with emotional intelligence, music art learning performance, and learning motivation as independent, dependent, and moderating variables.**

### TABLE IV. REGRESSION MODEL FOR RESULTS II

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.976(^\ast)</td>
<td>0.952</td>
<td>0.951</td>
<td>3.275</td>
</tr>
</tbody>
</table>

Adjusted R Square shows the coefficient of determination or the role of the variance (the independent variable in relation to the dependent variable). There is an increase in the adjusted R square of regression model I to regression model II by 35.1%. The Adjusted R-square of 0.951 shows that the emotional intelligence variable can explain 95.1% of music art learning performance. Other factors explain the remaining 4.9%.

### TABLE V. SIGNIFICANCE OF THE F VALUE FOR REGRESSION MODEL II

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Square</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>28776.670</td>
<td>3</td>
<td>9592.223</td>
<td>894.245</td>
</tr>
<tr>
<td>Residual</td>
<td>1437.367</td>
<td>134</td>
<td>10.727</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30214.036</td>
<td>137</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The F-count value obtained is 9592.245 with a significance level of 0.000 less than 0.05. This shows emotional intelligence and learning motivation and their interactions significantly music art learning performance.

### TABLE VI. SIGNIFICANCE OF THE T VALUE FOR REGRESSION MODEL II

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficient</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std.Error</td>
<td>T</td>
<td>Sig</td>
<td>Tolerance VIF</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>57.329</td>
<td>2.590</td>
<td>22.134</td>
<td>0.000</td>
</tr>
<tr>
<td>EQ</td>
<td>-0.924</td>
<td>0.060</td>
<td>-0.982</td>
<td>-15.461</td>
<td>0.000</td>
</tr>
<tr>
<td>Motivation</td>
<td>0.204</td>
<td>0.050</td>
<td>0.195</td>
<td>4.080</td>
<td>0.000</td>
</tr>
<tr>
<td>Moderat I</td>
<td>0.012</td>
<td>0.000</td>
<td>1.679</td>
<td>29.377</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The regression equation is obtained \( Y = 57.329-0.924 + 0.204 + 0.12 \times (X1 \times X2) \).

Emotional intelligence has a t-count value of 15.461 with a significance level of 0.000 (significant). Furthermore, the learning motivation variable has a t-count value of 4.080 with a significance of 0.000 (significant). The moderate I variable (interaction between emotional intelligence and learning motivation) has a t-count value of 29.337 with a significance of
0.000 (significant). This means that learning motivation is the moderating variable for the effect of emotional intelligence on music art learning performance.

IV. CONCLUSION

This study shows that emotional intelligence significantly affects music learning performance in students of State Senior High School I Sausapor, Tambrauw Regency - West Papua by 60.1%. Similarly, learning motivation significantly moderates the effect of emotional intelligence on music art learning performance by 95.1%.

REFERENCES


