

# The Effect of Learning Gamelan Art on Emotional Intelligence

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**Abstract:** Teenager are increasingly confronted with emotional issues, demanding a solution such as adolescent emotional intelligence development. Traditional Indonesian music, notably Javanese gamelan, can help teenager develop emotional intelligence. People who follow a set of rules and limits undertake Javanese gamelan exercises. When practicing gamelan, the individual must hit his gamelan tool and listen to the gamelan played by his colleagues in the gamelan group to generate a harmonic gamelan sound. This study used quantitative approaches in conjunction with a sample size of 135 UWK Surabaya students. The Java Gamelan Music Exercise Intensity Scale ( $r = 0.848$ ) and the Emotional Intelligence Scale ( $r = 0.772$ ) are used as data-gathering instruments in the sampling technique. The product-moment correlation method was used to analyze the data, and the result was 0.550. The study's findings revealed a link between the severity of Javanese gamelan music training and emotional intelligence, with the higher the intensity of Javanese gamelan music training, the higher the emotional intelligence. The intensity variable of Javanese gamelan music training can contribute 30.25 percent to the emotional intelligence variable. In contrast, the remaining 69.75 percent is influenced by elements other than the intensity variable of Javanese gamelan music training. Beyond the intensity variables of Javanese gamelan music training, the family, non-family, physical, and psychological environments all have a role.

**Keywords:** *Intensity of musical exercise, Javanese gamelan, emotional intelligence*

**Abstrak:** Remaja semakin dihadapkan pada permasalahan emosional, menuntut solusi seperti pengembangan kecerdasan emosional remaja. Musik tradisional Indonesia, khususnya Gamelan Jawa, dapat membantu perkembangan kecerdasan emosional remaja. Orang yang mengikuti seperangkat aturan dan batasan melakukan latihan gamelan Jawa. Saat berlatih gamelan, individu harus memukul alat gamelannya dan mendengarkan gamelan yang dimainkan oleh rekan-rekannya dalam kelompok gamelan untuk menghasilkan suara gamelan yang harmonis. Penelitian ini menerapkan pendekatan kuantitatif dengan jumlah sampel 135 mahasiswa UWK Surabaya. Skala Intensitas Latihan Gamelan Jawa ( $r = 0,848$ ) dan Skala Kecerdasan Emosional ( $r = 0,772$ ) digunakan sebagai instrumen pengumpulan data dalam teknik pengambilan sampel. Metode korelasi *product-moment* digunakan untuk menganalisis data, dan hasilnya adalah 0,550. Hasil penelitian mengungkapkan adanya hubungan antara berat ringannya pelatihan musik gamelan Jawa dengan kecerdasan emosional, semakin tinggi intensitas pelatihan musik gamelan Jawa maka semakin tinggi pula kecerdasan emosionalnya. Variabel intensitas pelatihan musik gamelan Jawa dapat memberikan kontribusi sebesar 30,25 persen terhadap variabel kecerdasan emosional. Sebaliknya, 69,75 persen sisanya dipengaruhi oleh unsur selain variabel intensitas pelatihan musik gamelan Jawa. Di luar variabel intensitas pelatihan musik gamelan Jawa, lingkungan keluarga, non-keluarga, fisik, dan psikologis semuanya memiliki peran.

**Kata Kunci:** *Intensitas latihan musik, gamelan Jawa, kecerdasan emosional*

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## INTRODUCTION

Storm and stress are associated with adolescence, a period of emotional upheaval marked by a lack of dynamic control, a propensity to be influenced by the environment,

and a solid attachment to peers. Adolescent emotional turmoil is influenced by various factors, including family, school, classmates, and the activities or activities that teenagers engage in daily (Geraldina, 2017; Hallan, 2006).

During this time, teenager experience a developmental transition from childhood to adulthood involving biological, cognitive, and social development (Syukriyyah & Rivana, n.d.). Biological development in teenager is characterized by hormonal changes, height growth, and maturity of sexual organs, namely puberty, while cognitive development is characterized by changes in mindset and intelligence. The emergence of social maturity in the form of independence, the ability to manage emotions, and the ability to build positive relationships with others characterizes social development (Syukriyyah & Rivana, n.d.; Yusli & Rachma, 2018). Adolescent tendencies to experience emotional difficulties characterized by behavior tend to be impulsive, aggressive, lonely, less appreciative of manners, and easily anxious. Emotional difficulties appear in the increase in cases such as juvenile delinquency, aggressiveness, being rude, frequently fighting, demanding attention, committing acts of violence and even drug abuse.

The development of emotional maturity in teenager positively impacts dynamic management, self-control and can overcome emotional difficulties experienced by teenager (Yanti et al., 2020). Teenager who have good emotional maturity are closely related to their ability to develop emotional intelligence. Emotional intelligence (EI) is relatively new to the intelligence quotient (IQ) (Djohan, 2010). Today more and more research shows that the benefits of emotional intelligence are no less important than IQ. The role of IQ for individual success is only about 20%, and 80% is determined by a cognate of factors called emotional intelligence. Various studies in the field of psychology prove that individuals with high emotional intelligence can manage emotions, establish good relationships with other individuals, manage stress, and have good mental health. Individuals with good emotional intelligence will develop when often listening to music with a regular rhythm and tone (Shaleha, 2019; Testamentyas et al., 2018). Children accustomed to listening to music will tend to produce more emotional intelligence and intelligence than children who rarely listen to music. The benefits of learning music that individuals will feel include building emotional intelligence, improving intelligence and social skills, practicing empathy, and fostering musicality skills in individuals. This is supported by several studies that examine the role of music

in everyday life, among others, conducted by De Nora on a group of American and British women to see how music can be functioned in processing, maintaining, and improving the quality of emotions. The results showed that music is recognized to have the means to organize and improve the quality of self, both in cognitive, emotional, and physical aspects. Similarly, the results of Sloboda's research revealed that music has a function to improve, change emotions and spiritual aspects, or bring individuals to transcendent conditions.

Traditional music has been passed down through the years, serving not only as a source of enjoyment but also as a way of connection between people and the Creator (Elliott, 2010; Harris, 2009). Traditional music is the community's local art repertory. Nusantara, or traditional music, currently contributes 3.48 percent of the country's economy, according to figures from the ministry of tourism and creative economy. Gamelan music is a type of traditional Indonesian music (Hartono, 2012). A gamelan is a collection of musical instruments that are performed in unison. Gamelan is derived from the word *gamel* or *gambel*, in this context, it relates to the way or technique (technique of playing) playing gamelan art and musical practice that is the attitude of play (manner of playing) (Aribawa, 2018; Sunarya et al., 2001; Teguh, 2017). Java gamelan is in the form of blades of various sizes (Ediyono et al., 2019). There is also a *kendang*, a swipe tool that is *rebab*, and then *gambing* is a type of xylophone with blades of wood, gongs, whiny, and flute. Gamelan is grouped based on the functions played by each instrument or musical instrument and played by a group of individuals together by following certain rules or packages so that beautiful music sounds (Hartono, 2012; Iswantoro, 2017; Teguh, 2017). In addition to hitting his own gamelan tool, the individual must also pay attention to the gamelan tool played by colleagues in the gamelan group in order to make a harmonic gamelan sound when practicing gamelan. Individuals learn to control themselves, respect fellow gamelan groups, and follow the rules of gamelan together in order to create a harmonized sound through gamelan training.

## **METHOD**

The study's independent variable was the intensity of Javanese gamelan music training, and the study's dependent variable was emotional intelligence. In this study, the

operational definition of the intensity variable of Javanese gamelan music training is a repeated effort by individuals that includes aspects such as individuals' knowledge of Javanese gamelan musical instruments (knowing), the use of Javanese gamelan facilities such as how to play Javanese gamelan musical instruments (application), and the level of frequency (Arikunto, 2006; Rohidi, 2011; Untari, 2018). The target population in this study is all Javanese gamelan music players who have obtained Javanese gamelan theory and practicum formally through the Student Activity Unit (UKM). While the most accessible population in this study is all Javanese gamelan music players who attended karawitan majors, the city of Surabaya, which numbered 252 people. Characteristics of respondents to this study are teenagers aged 15 to 22 years and have obtained theory and practicum formally through the karawitan school about Javanese gamelan music for at least six months. Purposive sampling, which is a sampling strategy employed for a specific goal based on relevant considerations such as representative sample qualities for research objectives, was used in this study. Purposive sampling techniques were used because they were consistent with the goal of the study, which was to determine the relationship between the intensity of Javanese gamelan music training and emotional intelligence, based on the characteristics of the operational definition of Javanese gamelan music training intensity and the research efficiency.

Measurement of the intensity of Javanese gamelan training using a scale that is the Intensity Scale of Java Gamelan Music Training which covers aspects, namely knowledge about playing Javanese gamelan musical instruments (knowing), the use of Javanese gamelan facilities that include how to play Javanese gamelan musical instruments (application), and the level of frequency or frequency of Indonesian gamelan music in practicing Javanese gamelan music (frequency). Emotional intelligence will be measured using scales with a modified closed statement form of the Emotional Intelligence Scale. In this study, the data was taken cross-sectional, which is a study conducted at one time and once to look for the relationship between free variables and dependent variables (Akdon, 2010). The Data collecting tool in this study used two types of scales, namely the Java Gamelan Music Training Intensity Scale and the

Emotional Intelligence Scale, which are available with four answer options, namely 'strongly disagree', 'disagree', 'agree', and 'strongly agree', in that scale there are directives on how to answer, which respondents are required to choose one of the alternative answers and also fill out the respondent's identity sheet. The data analysis method uses Karl Pearson's product moment correlation in SPSS program version 20. This data analysis is used to determine the relationships and contributions of variants. Purposive sampling, which is a sampling strategy employed for a specific goal based on relevant considerations such as representative sample qualities for research objectives, was used in this study (Arikunto, 2006; Azwar, 2010). Purposive sampling techniques were used because they were consistent with the study's goal, which was to determine the relationship between the intensity of Javanese gamelan music training and emotional intelligence, based on the characteristics of the operational definition of Javanese gamelan music training intensity and the research efficiency. According to (Priyatno, 2008), two variables are said to have a linear relationship when the significance level is less than 0.05 with the help of the SPSS program version 20.

## **RESULTS AND DISCUSSION**

The measuring instrument trial in this study was conducted on study respondents, namely students of SMK Negeri 11 Surabaya, which was born on December 15, 2020, with a spread of 36 copies, namely the Intensity Scale of Javanese Gamelan Music Training and emotional intelligence scale, which was distributed to 36 respondents who were all male. But the scale is 34 copies. Data obtained at the time of testing the research measuring instrument will be analyzed to find out its validity and reliability. The Java Gamelan Music Training Intensity Scale obtained a correlation coefficient from 0.041 to 0.719 through the item validity test. Fourteen items died from 60 items tested, so that correct item to 46 items and reliability on the Java Gamelan Music Training Intensity Scale is 0.848 means more significant than the significance level of 0.05 so that this scale can be said to have a high enough reliability to measure the intensity of Javanese gamelan music training.

The Emotional Intelligence scale obtained a correlation coefficient that moved from 0.057

to 0.605 through an item validity test. Seventeen items died out of 60 items tested, so valid items to 43 items and reliability on the Emotional Intelligence Scale was 0.772, more significant than the significance level of 0.05. This suggests that this scale has a high enough intelligence to measure emotional intelligence. From the normality test results on the free variable, the intensity of Javanese gamelan music training has a significant value with a probability (p) of 0.525. The variable depending on emotional intelligence has a substantial value with a chance (p) of 0.823. The results of this test have a significant value with a pro Schedule above 0.05

( $p > 0.05$ ), indicating that the distribution of data on free and dependent variables is normal. From the results of the linearity test, it is known that the test results show a probability (p) of 0.000 or has a degree of significance for linearity of less than 0.05 ( $p < 0.05$ ) so that the relationship between the variable score of java gamelan music intensity and emotional intelligence indicates the existence of parallel or linear lines. After both requirements for data analysis have been met, continued by using the product-moment analysis method with SPSS software tools version 20.

**Tabel 1.** Hasil Uji Korelasi

		Total kecerdasan emosi	Total intensitas
<b>Total kecerdasan emosi</b>	Pearson Correlation	1	0,550**
	Sig. (1-tailed)		0,00
	N	135	135
<b>Total intensitas</b>	Pearson Correlation	0,550**	1
	Sig. (1-tailed)	0,00	
	N	135	135

The correlation coefficient (r) value of 0.550 is based on the data analysis results. The correlation number of (+) 0.550, which is larger than the significance level value of 0.05, suggests that the intensity variable of Javanese gamelan music training and the emotional intelligence variable have a meaningful association. While the positive sign (+) indicates a one-way association, indicating that the greater the intensity of Javanese gamelan music training, the greater the emotional intelligence. This rejects the null hypothesis and accepts the alternative hypothesis, which states a positive relationship between the intensity of Javanese gamelan music training and emotional

intelligence. The higher the intensity of Javanese gamelan music training, the higher the intensity of Javanese gamelan music training the emotional intelligence. Then, search for coefficient values determination to see how much of a contribution a free variable can contribute to a dependent variable. The coefficient of determination ( $r^2$ ) is calculated by squaring the r (0.550) value to get 0.3025 as the result of  $r^2$ .

Related to the categorization of groups that use the formula of categorizing scores from Azwar (2010) then obtained the following results:

**Tabel 2.** Kategori Skor Skala Intensitas Latihan Musik Gamelan Bali

Variabel	Rentang Nilai	Kategori	Subyek	Persentase
Intensitas	$X \leq 121,25$	Sangat Rendah	11 orang	8,1 %
Latihan	$121,25 \leq X \leq 134,75$	Rendah	30 orang	22,2 %
Musik	$134,75 \leq X \leq 148,25$	Sedang	55 orang	40,7 %
Gamelan Bali	$148,25 \leq X \leq 161,75$	Tinggi	27 orang	20 %
	$161,75 < X$	Sangat Tinggi	12 orang	8,9 %
Jumlah			135 orang	100%

**Tabel 3.** Kategori Skor Skala Kecerdasan Emosional

Variabel	Rentang Nilai	Kategori	Subyek	Persentase
Kecerdasan Emosional	$X \leq 109,37$	Sangat Rendah	9 orang	6,7 %
	$109,37 \leq X \leq 119,69$	Rendah	34 orang	25,2 %
	$119,69 \leq X \leq 130,01$	Sedang	55 orang	40,7 %
	$130,01 \leq X \leq 140,33$	Tinggi	27 orang	20 %
	$140,33 < X$	Sangat Tinggi	10 orang	7,4 %
Jumlah			135 orang	100%

Based on the table above, it shows that the categorization analysis on the Java Gamelan Music Training Intensity Scale shows that 55 respondents (40.7%) are in the moderate category, there are 27 respondents (20%) who are in the high category and 12 respondents (12%) who are in the very high category. The categorization analysis on the Emotional Intelligence Scale showed that 10 respondents were in a very high category, 27 respondents were in the high category and 55 respondents were in the moderate category. From the table it is known that respondents who fall into the category are very high at 7.4%, the high category by 20% and the moderate category by 40.7%. Based on the above exposure, it was concluded that the higher the intensity of Javanese gamelan music training, the higher the emotional intelligence. Following the hypothesis test, the null hypothesis (Ho) was found to be false and the alternative hypothesis (Ha) was true. The computerized results of the SPSS program version 20, which uses Karl Pearson's product moment correlation technique, produce a correlation coefficient (r) of 0.550 between Javanese gamelan music training and the emotional intelligence variable, and a probability number of 0.000 (p 0.05). This implies that the intensity variables of Javanese gamelan music training and the emotional intelligence variables have a unidirectional relationship, with the two variables being significantly positively associated.

If the intensity variable of Javanese gamelan music training increases, the emotional intelligence variable will also increase, according to the results of hypothesis testing. The more intense the Javanese gamelan music training, the more frequently individuals hone emotional intelligence by adhering to the laws of growing (playing, hitting) Javanese gamelan, which requires each individual to play gamelan tools. Javanese gamelan music practice, followed by several individuals who are members of one gamelan group where each individual plays one gamelan musical

instrument. Although each individual's concentration is focused on the gamelan musical instrument itself, they must also pay attention to the blow of the musical instrument played by other individuals in one gamelan group. Suppose the individual only pays attention to the gamelan game itself without paying attention to the gamelan musical instrument gamelan of other individuals in one group of gamelan. In that case, it can cause a disharmonious sound. Therefore, gamelan training will grow the process of maturity. It is also helpful for each individual to train, lower each other's egos and their lives, and pay attention and respect other individuals (Donder, 2005). This is the application of aspects of emotional intelligence, namely self-regulation and social skills. Self-regulation is demonstrated through effective management of emotions by lowering the personal ego to be responsible for the obligation, in this case, to play Javanese gamelan. Social skills are characterized by the ability of individuals to foster relationships with other individuals, wherein, in this case, Javanese gamelan group colleagues by paying attention and respecting their gamelan games.

### CONCLUSION

The results of this study) which states that skills in music (musical skills) in this case respondents join the activities of music groups, positively impact the personal and social development of individuals, namely improving self-esteem, communication, motivation, self-efficacy, self-concept, and forming positive self-attitudes. The results also showed that individuals who participated in music groups had higher self-esteem and social benefits (social benefits) than individuals who did not participate in activities in music groups, this was characterized by individuals who participated in music groups, more often socializing with parents and friends. This shows that respondents who often (frequency) engage in music activities can hone the emotional intelligence of respondents (40.7%) who are in the moderate category, 27 respondents (20%) who are in the high class, and ten respondents (7.4%) who are

in the very high sort. For the categorization of scores on the Java Gamelan Music Training Intensity Scale, there were 55 respondents (40.7%) who were in the moderate category, 27 respondents (20%) who were in the high class, and 12 respondents (8.9%) who were in the very high sort. This shows that Javanese gamelan music training is relatively intense. As a result, the findings of this study's hypothesis test show a link between the intensity of Javanese gamelan music training and emotional intelligence. The higher the power of Javanese gamelan music training, the higher the emotional intelligence. However, future studies should use interview and observation methods to obtain more in-depth and complete data from this research. The interview method can be done on Javanese artists, experts, and gamelan practitioners, where the results of this interview can be used as a theoretical basis. Interviews with respondents can also be done as a description to complete the existing data. In addition to interviews, making observations when respondents practice gamelan can also be used as a supporting description of research data and is needed to expand research respondents in Surabaya and other Java areas for generalization purposes.

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