



## The Relationship Between the Use of TikTok and PjBL Models with Music Learning Outcomes

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**Abstract:** This research explores the relationship between using TikTok as a learning medium and the Project Based Learning model with music learning outcomes. With the growing popularity of TikTok among children, this research aims to understand how the social media platform can be used effectively in an educational context, particularly in music learning. This study aims to determine the relationship between the use of TikTok and the project-based learning model with the learning outcomes of music art of grade IV students at SD Gugus Kemuning, Ngaliyan District. This research was a type of correlational research with a population of 306 people and a sample of 122 people taken using the quota sampling technique. Data on the use of TikTok and project-based learning models were collected through questionnaires, while data on music learning outcomes were obtained through practical tests. Data were analysed using regression analysis. The results of data analysis show that the relationship between the use of TikTok and project-based learning models with music learning outcomes is 0.408 with a coefficient of determination of 16.6%, meaning that there is a significant relationship between the use of TikTok and project-based learning models with music learning outcomes. This research provides evidence that social media, when used wisely, can be a tool or medium to support education and increase student engagement in music learning.

**Keywords:** TikTok, project-based learning, music learning outcomes

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### Introduction

Education has an important role in human life. Education is a learning process that involves giving and receiving knowledge, developing skills, and forming important attitudes and values to develop themselves in life. This is in accordance with the Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System, education is a conscious and planned effort in realising an active learning process for students to develop their potential.

Arts and Culture Education is basically an important learning content, because from the learning content of arts and culture students are trained to develop their interests and talents. The purpose of art education is not to make students to become artists, but to make students work in art in order to have a love and sense of belonging to art, therefore art education in schools is strived to be able to help students form and have skills in the field of art they learn (Budiman et al., 2020). One of the scopes of arts and culture learning content is music. In essence, music is learning that directs students to learn while playing. Music learning in elementary schools has a role in training and developing thoughts and feelings that can be expressed through the elements of beauty that exist in music including melody, rhythm, and harmony (Restian & Amelia, 2019). Through learning music students can develop creativity, help, individual development express expression and introduce national culture to students. Music learning is able to train students in developing cognitive, affective, and psychomotor aspects (Madina et al., 2021). The role of teachers is needed to innovate the learning process so that learning objectives can be achieved optimally and obtain maximum learning outcomes. Through the learning process, it is expected to be

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able to achieve the expected learning outcomes through the evaluation process carried out. Learning outcomes are something that a person achieves after going through the learning process obtained from the evaluation or learning process that has been carried out (Pratiwi & Meilani, 2018). Likewise, learning outcomes in music learning are obtained from the results of mastery of material within the scope of material that students understand and practice. According to (Wuarlela, 2020) To achieve effective and efficient learning, it is necessary to utilise learning media in the learning implementation process.

One factor that plays an important role in the learning process is the use of learning media. (Wulandari et al., 2023). The success of a learning process is inseparable from the role of media in its implementation (Ulfa & Soenarto, 2017), because the use of appropriate media can improve the ability of student learning outcomes, especially in learning music. Learning media is an intermediary, tool or object that can help in the teaching and learning process and support the achievement of learning objectives (Budiarti & Haryanto, 2016). However, at present, many teachers have not used digital media as learning media or only still use concrete learning media in learning without being balanced with the use of digital media, referring to the current era has entered the 21st century. Learning in the 21st century will use digital-based learning, especially regarding the use of learning models and media (Rahayu et al., 2022). This also affects learning. In 21st century learning teachers are expected to be able to bring learning that includes the use of technology to improve learning outcomes. Utilising existing media is a form of good learning implementation. In this 21st century, digital-based learning media can be used as a support for teaching and learning activities. One of them is the use of technology-based learning media to keep up with the times. Currently, the development of education has been impacted by the development of technology (Pebriani, 2017). The development of technology has a positive impact especially in the utilization of media for learning (Herayanti et al., 2017). The era of industrial development 4.0 has an impact on technological development, namely the emergence of innovative learning media (Nurharini et al., 2019). Therefore, teachers must compensate by being able to provide learning that is interactive, inspiring, fun, challenging, and motivates students to actively participate in being able to develop creativity and independence according to the interests and talents of students.

Technological developments also affect the development of social media. Social media is a medium or tool that can be used to share information in the form of text, images, sound or video between users. So that social media can be used as a means of creating a form of communication and sharing information for all users of social media (Rahmawati, 2021). The existence of social media can be interpreted as a phase where a person is able to read and share news, information, and content with others so that it can be called a phase of change (Sutikno et al., 2021). Social media applications are currently widely used by children or elementary school students (Bujuri et al., 2023). It can even be said that the use of social media is very attached to the daily lives of students (Fajar & Machmud, 2020). In everyday life, the presence of social media is not only for enhancing and building relationships, but also a very powerful tool in the mechanism of education and learning (Sharma et al., 2021). In line with the times, social media must be able to meet the needs of society, especially for students (Ilahin, 2022). In relation to the learning process, social media is one part of the learning media that undergoes renewal along with the times. As a form of learning media, the use of social media can lead to a more effective and efficient teaching and learning process (Rahman et al., 2023). Basically, social media can be used as a learning media as a form of implementation of the development of science and technology during the 21st century learning period. One of the social media that can be used as a medium for learning music is TikTok social media (Ardiyanti et al., 2021).

TikTok is a social media that is familiar today. TikTok users in Indonesia are mostly children or students (Wijaya & Mashud, 2020). TikTok was introduced in September 2016. TikTok is a Chinese social networking app and video platform. The TikTok app can be used by users to create music videos with short duration (Icha & Kurniadi, 2022). The use of TikTok as learning media makes learning more interesting, because it is accompanied by illustrations, music, which can be accessed anywhere and anytime, easy to use, and its use is not limited (Rahmana et al., 2022). In Indonesia, the TikTok application reaches more than 10 million users, and elementary school children make up the majority of TikTok application users, the TikTok application is one of the prima donnas of social media, and is loved by millennials, the majority of whom are school children (Fajarini et al., 2024). The TikTok application can be used as a digital learning media innovation to create interactive, interesting, and fun learning, so that its use is expected to help students in receiving and understanding the learning process. Therefore, teachers are expected to have the knowledge and skills in operating technological media in

teaching and learning activities so that they are able to convey learning materials properly (Widianto, 2021). The use of TikTok as a digital learning media is expected to make educators and students experience progress and development in order to encourage the quality of schooling, and be able to face technological changes that are always developing (Indriani et al., 2023). In addition, another factor that determines the success of learning is the correct application of the learning model (Wicaksono & Iswan, 2019).

Project Based Learning (PjBL) model means project-based learning model. In the learning process, it requires learners to make certain projects (Desyandri & Maulani, 2020). The Project Based Learning model is known as one of the innovative learning models, which in its implementation emphasises contextual learning through complex activities. The project-based learning model is included in innovative learning, in its implementation which is learner-centred and places the teacher as a motivator and facilitator. Learning music art by applying the Project Based Learning model aims to teach students to find problem solving, learn the concept of how to solve problems and develop critical thinking skills. Significantly, the application of the Project Based Learning model can improve students' creative thinking skills and encourage students to be more motivated, directly involved, and active in learning (Sudewiputri et al., 2023). The Project Based Learning model is one of the learning models that can help students succeed in the teaching and learning process. In its implementation, this learning model prioritises direct experience so that it can attract students' attention to be active in learning so that it can produce meaningful learning (Irfana et al., 2022). Through the use of Project Based Learning (PjBL) learning media in music learning, students are trained to think critically and learn to develop their creativity (Fahrurrozi et al., 2022).

Based on the results of interviews conducted with class IV teachers of SD Gugus Kemuning in Ngaliyan Sub-district, information was obtained that in general students look more enthusiastic and excited during learning if the learning process uses learning media compared to learning that does not use learning media or only relies on explanations from the teacher. However, in music learning, teachers have not used learning media in the teaching and learning process. The material is only taught in a monotonous or ordinary way, without any learning media being used. As with learning music on number notation, where the teacher only teaches the material in the form of beats or hand claps. In addition, the teacher revealed that students still have difficulty in reading and remembering number notation, sometimes there are mistakes in reading the number notation. This happens because the teacher has not used learning media in learning music. Tiktok can be used as a medium for learning music, in Tiktok you can find many references that can be used as learning media. This can also be a form of implementation of the use of learning media related to technological developments, especially in the development of social media in the music learning process.

Based on this description, the researcher wants to know 'The relationship between the use of TikTok learning media and the PjBL model with grade IV music learning outcomes in elementary schools in Kemuning Gugus, Ngaliyan District, Semarang City'.

## **Methods**

Based on the problems studied, this research is classified into quantitative research with a correlational type. Research with problem characteristics manifested in the form of a correlational relationship between two or more variables is known as correlational research (Sugiyono, 2019). The purpose of this study is to determine whether the use of the TikTok and PjBL models with learning outcomes has characteristics that are related or related.

In this correlation study of the use of TikTok and the PjBL model, researchers followed the steps in correlational research which consisted of 6 steps: (1) problem selection; (2) problem review; (3) design and procedures; (4) sample determination; (5) data collection; (6) data analysis and interpretation (Selviana et al., 2024). The research steps can be seen in Figure 1.

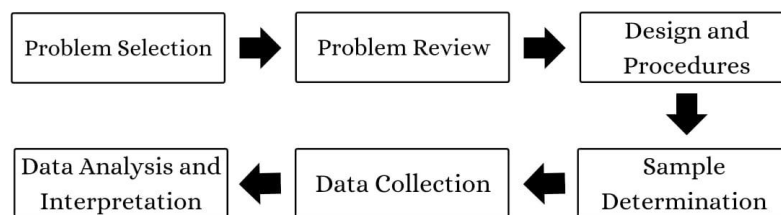


Figure 1. Steps of Correlational Research

In correlational research, problem selection is based on the premise of developing experience or theory. Researchers must have reasons for determining certain variables that are possible to be connected. In reviewing the problem, it is used as a basis for obtaining a theoretical basis and as a temporary conjecture so that researchers can understand, allocate, organize, and use according to their field. As for design and procedure, it is useful to state the level of relationship between variables. Furthermore, in the sampling step, it is recommended that the research sample is not less than 30 subjects / data. Continue on the data collection step, which aims to obtain the data carried out in the study. The last step is data analysis and interpretation which is useful for obtaining results in the form of presence or absence, high or low relationship between variables.

Population is all individuals, objects, or events that are the focus of research (Susanto et al., 2024). The population in this study included all fourth grade students of Elementary School Gugus Kemuning, totalling 306 students, with the following details.

Table 1. List of Number of Students in Grade IV Elementary School Gugus Kemuning

School Name	Number of Learners in Class IV
Elementary School Tambakaji 01	53
Elementary School Tambakaji 02	28
Elementary School Tambakaji 05	41
Elementary School Wonosari 01	41
Elementary School Wonosari 02	56
Elementary School Wonosari 03	55
Elementary School Kanisius Beringin	32
Total	306

The sample is a small number in the population that is considered to represent it (Suriani et al., 2023). While the samples in this study were fourth grade students of Elementary School Tambakaji 01, Elementary School Tambakaji 02, and Elementary School Tambakaji 05 which were taken using the quota sampling technique with the provisions of Roscoe's suggestions in Sugiyono (Sugiyono, 2019). According to the sample determination based on Roscoe's suggestion, a sample is said to be feasible if it meets the number between 30-500 samples. If the research conducts multiple regression analysis, then to determine the minimum number of samples, namely 10 times the number of variables studied, for example a study examines 3 variables, then multiplied by 10 the result is 30, then 30 is the minimum number of samples studied. In this study, the number of samples used was 122 samples, so it was said to be suitable for use in this study.

The data collection methods used in this study were interviews, questionnaires, tests, and documentation. The questionnaire instrument contains four answer choices in the form of a rating scale, which is used to determine the results of using tiktok and the PjBL model. The test instrument is in the form of a practical test which is used to measure the learning outcomes of music notation material. Interviews are used to obtain information related to existing problems in learning which serve as problem identification and find out the condition of the research variables, along with supporting data in the study. Meanwhile, documentation was used as data collection to find out music learning outcomes, licence letters and photos of activities during the research.

The research instrument that has been made, through a trial process followed by a validity test and reliability test. As for the prerequisite tests carried out, namely normality, linearity, multicollinearity, autocorrelation, and heteroscedasticity tests, while for data analysis techniques using

simple regression analysis and multiple regression analysis. Prerequisite tests and data analysis were assisted by using IBM SPSS Statistic 27.

## Results and Discussion

### Results

There are two independent variables in this study, namely the use of TikTok (X1), PjBL Model (X2) and one dependent variable, namely Learning Outcomes (Y). The purpose of this study was to determine the relationship between the use of TikTok learning media and the PjBL model with the learning outcomes of music art learning material for grade IV number notation at SD Gugus Kemuning, Ngaliyan District, Semarang City.

Description of data on the use of tiktok learning media, PjBL model, and music learning outcomes that describe the minimum, maximum, average, median, mode, standard deviation, and variance scores. The results of the descriptive analysis calculation are presented in Table 1.

**Table 2.** Descriptive Statistics

	N	Min	Max	Mean	Median	Mode	Std. Deviation	Variance
TikTok Usage	122	12	46	35.70	36.00	34	5.736	32.904
PjBL Model	122	11	32	23.09	23.00	23 <sup>a</sup>	5.112	26.132
Learning Outcomes	122	70	90	81.10	81.00	81 <sup>a</sup>	5.093	25.941

The number of samples in each variable is 122 students, with the acquisition of each variable, the variable use of TikTok obtained a minimum value of 12 and a maximum value of 46, an average of 35.70, a standard deviation of 5.7, and a data variance of 32.9. For the PjBL model variable, the minimum value is 11 and the maximum value is 32, the average is 23.09, the standard deviation is 5.1, and the data variance is 26.1. Meanwhile, the learning outcomes variable obtained a minimum value of 70 and a maximum value of 90, an average of 81.1, a standard deviation of 5.09, and a data variance of 25.9. Before the data is tested further, a prerequisite test is conducted consisting of normality test, linearity test, multicollinearity test, autocorrelation test, and heteroscedasticity test.

**Table 3.** Normality Test Results

No	Variable	Asymp. Sig. (2-tailed)	Significant Level	Status
1	TikTok Usage	0.054	0.05	Normal
2	PjBL Model	0.172	0.05	Normal
3	Learning Outcomes	0.166	0.05	Normal

The normality test is carried out to test whether the data is normally distributed or not. The test criteria, if the value of Asymp. Sig (2-tailed) > 0.05 significant level, the data is normally distributed. Meanwhile, if the Asymp. Sig (2-tailed) < 0.05 significant level, then the data is not normally distributed. Based on the results of the normality test using the Kolmogrov Smirnov formula, it is known that the significance value seen from Asymp. Sig. (2-tailed) for each variable is 0.054; 0.172; and 0.166 or has a value greater than 0.05, (0.054; 0.172; 0.166 (> 0.05)), it can be concluded that all variable values are normally distributed.

Furthermore, the data linearity test was carried out. To ascertain whether there is a linear relationship between the variable use of tiktok and the PjBL model variable with learning outcomes, a linearity test is carried out. The test conditions, each independent variable and the dependent variable have a linear relationship if the Sig value. Deviation From Linearity is more than 0,05.

**Table 4.** Linearity Test Results

No	Variable	Sig. Deviation From Linerity	Significant Level	Status
1	TikTok Usage	0.104	0.05	Linier
2	PjBL Model	0.421	0.05	Linier

Based on the test results in the table above, the sig value of Deviation from Linearity is 0.104 and 0.421, which means that the value is  $> 0.05$  ( $0.104; 0.421 > 0.05$ ). So, it is concluded that there is a linear relationship between the variable use of tiktok and music learning outcomes and there is a linear relationship between the pjbl model and music learning outcomes.

The multicollinearity test was carried out to determine whether there was a relationship between the independent variables in the study. Multicollinearity testing is seen from the acquisition of VIF and Tolerance values. The following multicollinearity test results are presented in Table 5.

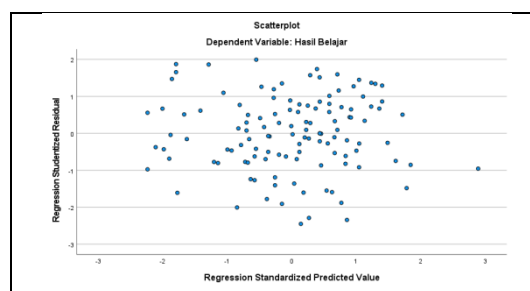
**Table 5.** Multicollinearity Test

		Coefficients <sup>a</sup>	
		Collinearity Statistics	
Model		Tolerance	VIF
1	TikTok Usage	0.942	1.062
	PjBL Model	0.942	1.062

a. Dependent Variable: Learning Outcomes

Based on the results in the multicollinearity test table above, the variable Use of TikTok (X1) obtained a VIF value of 1.062 and the PjBL Model variable (X2) obtained a VIF value of 1.062, so the VIF value is less than ( $< 10.00$ ). While the Tolerance value on the TikTok Usage variable (X1) is 0.942 and the Tolerance value on the PjBL Model variable (X2) is 0.942, so the Tolerance value is more than ( $> 0.100$ ). So it can be concluded that there are no symptoms of multicollinearity. Furthermore, the autocorrelation test is carried out with the test rules, the value in the Durbin Watson (D) column is close to the value of 2, or the results of  $DU < D < 4-DU$ , it can be stated that the entire data group does not occur autocorrelation. Based on the test results, the Durbin Watson value of 2.161 is greater than DU (1.7379) and the 4-DU value (2.262) is greater than the Durbin Watson value of  $1.7379 < 2.161 < 2.262$ , it is concluded that the data does not occur autocorrelation.

Furthermore, the heteroscedasticity test is carried out, while the results of the heteroscedasticity test are shown in Figure 1.



**Figure 2.** Heteroscedasticity Test Results

The next test, to ascertain whether in the regression model there is an inequality of residual variance between observations, a heteroscedasticity test is carried out. The heteroscedasticity test is displayed on the scatterplot graph. Based on Figure 2. It can be seen that the points spread above and below or around the number 0, or do not just collect above or below, besides that the distribution of data points also does not form a pattern, so there is no heteroscedasticity.

After the prerequisite test is fulfilled, then hypothesis testing is carried out. The data analysis technique used consists of simple regression analysis and multiple regression analysis. Data analysis processing uses the help of IBM SPSS Statistic 27. The hypothesis test results obtained are as follows:

**Table 6.** Results of Data Analysis on Hypothesis Test

Variable	r <sub>hitung</sub>	r <sub>tabel</sub>	Coefficient of Determination	F <sub>hitung</sub>	F <sub>tabel</sub>	Hypothesis	
						H <sub>0</sub>	H <sub>a</sub>
r <sub>x1y</sub>	0.348	0.178	12.1 %	16.512	3.07	Rejected	Accepted
r <sub>x2y</sub>	0.291	0.178	8.5 %	11.084	3.07	Rejected	Accepted
r <sub>x1x2y</sub>	0.408	0.178	16.6 %	11.876	3.07	Rejected	Accepted

The analysis results in Table 6 explain the value of the correlation coefficient, which is  $r_{count} = 0.348 > r_{table} = 0.178$ . The analysis also shows the price of  $F_{hitung} = 16.512 > F_{tabel} = 3.07$  which means that the regression line is significant, this means that H<sub>a</sub> which states that there is a significant relationship between the use of tiktok learning media and music learning outcomes is accepted and H<sub>0</sub> which states that there is no significant relationship between the use of tiktok learning media and music learning outcomes is rejected. From these results, the coefficient of determination (R square) of 0.121 is obtained, which means that the influence of the variable use of tiktok (X1) on the learning outcomes variable (Y) is 12.1%.

The analysis results in Table 6 explain the value of the correlation coefficient, which is  $r_{count} = 0.291 > r_{table} = 0.178$ . The analysis also shows the price of  $F_{hitung} = 11.084 > F_{tabel} = 3.07$  which means that the regression line is significant, this means that H<sub>0</sub> which states that there is no significant relationship between the p<sub>jbl</sub> model and music learning outcomes is rejected and H<sub>a</sub> which states that there is a significant relationship between the P<sub>jbl</sub> model and music learning outcomes is accepted. From these results, the coefficient of determination (R square) of 0.085 is obtained, which means that the influence of the P<sub>jbl</sub> model variable (X2) on the learning outcomes variable (Y) is 8.5%.

The results of the analysis show that the relationship between the use of tiktok and the P<sub>jbl</sub> model on learning outcomes obtained a  $r_{count}$  coefficient value of 0.408, when compared with the 5% significance level, the  $r_{table}$  value of 0.178 is obtained, the  $r_{count}$  value is greater so that the calculated  $r$  value is significant. When viewed from the value of  $F_{hitung} = 11.876 > F_{tabel} = 3.07$ , which means that there is a significant relationship between the use of tiktok and the P<sub>jbl</sub> model on the learning outcomes of music art of grade IV elementary school students. The regression equation for the relationship between the use of tiktok learning media and the P<sub>jbl</sub> model on music learning outcomes of grade IV elementary school students in the Kemuning Gugus, Ngaliyan District, Semarang City is as follows  $\hat{Y} = 95.497 + 0.262 X_1 + 0.219 X_2$ .

This regression equation means that if the double regression constant of 95.497 shows that if the variable score of the use of tiktok learning media and the P<sub>jbl</sub> model is zero, then the score of music learning outcomes is 95.497. If there is an increase of one unit of application in the variable use of tiktok learning media (X1) of 0.262, it is followed by an increase in music learning outcomes of 95.497 with the assumption that the P<sub>jbl</sub> model variable is in a fixed condition. Every one unit increase for the p<sub>jbl</sub> model variable (X2) of 0.219 will be followed by an increase in music learning outcomes of 95.497 assuming that the variable use of tiktok learning media is in a constant condition. The variable use of tiktok learning media (X1) and the p<sub>jbl</sub> model variable (X2) have a joint influence (simultaneously) of 16.6% on the Learning Outcome variable (Y) and the remaining 83.4% is influenced by other variables outside this study. The results of this study illustrate that the high and low music learning outcomes are caused by the use of tiktok learning media and the P<sub>jbl</sub> model predicted by the regression equation.

## Discussion

Based on the results of the analysis and hypothesis testing that has been carried out, the following can be discussed: first, the relationship between the use of tiktok and music learning outcomes obtained  $r_{count}$  of 0.348 which is greater than  $r_{table} = 0.178$  which means the hypothesis is significant, with a contribution of the coefficient of determination of 12.1%. So it can be concluded that there is a significant relationship between the use of tiktok and the learning outcomes of class IV students in SD Gugus Kemuning, Ngaliyan District. This result is supported by the opinion of (Suprihatin, 2022) which states that the use of tiktok media can affect student achievement or learning outcomes. This is also in line with research conducted by (Rahmawati, 2021) which states that there is a positive correlation or relationship between the tiktok application variable and the achievement or learning outcomes of students at SD N 1 Panjangrejo Pundong, Bantul Regency.

Secondly, the relationship between the PjBL model and music learning outcomes obtained the  $r$ count of 0.291 which is greater than the  $r$ table 0.178 which means that the second hypothesis is significant, with a contribution of the coefficient of determination of 8.5%, it can be concluded that there is a significant relationship between the PjBL model and the music learning outcomes of grade IV students in SD Gugus Kemuning Ngaliyan District. This is supported by the opinion of (Butar Butar et al., 2022) which states that the application of the PjBL model in the implementation of learning has an impact on achieving maximum learning outcomes. This is in line with research conducted by (Nurhadiyati et al., 2020) which states that there is an effect of the PjBL model on learning outcomes in class IV SD Negeri 01 Kamuyang.

Third, the relationship between the use of tiktok and the PjBL model with music learning outcomes obtained  $F$ count = 11.876 >  $F$ table 3.07 which means that the third hypothesis is significant with a contribution of the coefficient of determination of 16.6%, it can be concluded that there is a significant relationship between the use of tiktok and the PjBL model with the music learning outcomes of grade IV students in SD Gugus Kemuning, Ngaliyan District. This is supported by the opinion of (Berliana et al., 2023) which states that the use of tiktok affects learning outcomes, and is also supported by the opinion of (Hutapea & Simanjuntak, 2017) which states that the PjBL model has a positive impact on learning outcomes.

The results of data analysis that have been carried out in this study have resulted in a summary of the results of hypothesis testing that there is a significant relationship between the Use of TikTok Learning Media and the PjBL Model with the Learning Outcomes of Grade IV Students in SD Gugus Kemuning, Ngaliyan District, Semarang City. Achieving maximum learning outcomes is influenced by the use of media and learning models. One of them is TikTok learning media and project-based learning models that can be used in learning music in elementary schools. TikTok can be used as a medium in the learning process (Kusumandaru & Rahmawati, 2022). The use of TikTok as a learning media can make learning more interesting and fun, it can help students in receiving and understanding the material taught by the teacher in the learning process. The use of TikTok learning media in learning activities has many benefits, especially in learning music (Herdiati et al., 2021). TikTok is one of the alternative tools that can be used in the technology-based learning process, which helps in optimising learning to obtain the expected learning outcomes. The use of the TikTok application as a learning medium has a positive influence when applied in the learning process. (Ulum et al., 2022). In learning music the process of delivering material will be more effective and efficient if assisted by the use of learning media, students are taught to be able to develop their interests and talents, so learning media is needed that can help support the implementation of music learning, in its use, the media is in line with the learning being taught. Many video references can be found in TikTok regarding learning music, one of which is a video reference for learning notation numbers, which makes TikTok a social media that can help and support learning activities at school.

The choice of learning model is very important for the continuity of the learning process. One of the learning models that can be applied is the PjBL learning model. Project-based learning (PjBL) model in its implementation begins with a problem that leads to the final result in the learning process through cooperation and active participation by students (Tesi Muskania & Wilujeng, 2017). The creation of a fun and memorable learning atmosphere, with embedded concept planting and being able to increase student activity and understanding in learning is obtained from the use and application of the PjBL model in learning (Djoko Suwito, 2021). The use of the Project Based Learning model can help students to participate and play an active role in learning and be able to train students in understanding independently and in groups (Rahmana et al., 2022). In its application, the PjBL model is able to optimise learning outcomes (Meirawati & Kresnawati, 2022). In music learning, the PjBL model is able to train students in developing their creativity, in the implementation of the PjBL model emphasises student-centred learning so as to encourage students to be more active, motivated, and directly involved in the learning process so as to optimise the learning outcomes obtained.

## **Conclusion**

Based on the discussion and results of the research that has been carried out, it can be concluded that there is a significant relationship between the use of tiktok and the PjBL model on the learning



outcomes of class IV music notation at SD Gugus Kemuning, Ngaliyan District, Semarang City. Judging from the test analysis results obtained, it can be concluded that the results of data analysis obtained a rcount of 0.408 which is greater than the rtable of 0.178 or  $r_{count} > r_{table}$  which means significant with a coefficient of determination of 16.6%, it can be concluded that there is a significant relationship between the use of TikTok and the PjBL model with the learning outcomes of fourth grade music students in SD Gugus Kemuning Ngaliyan District. The suggestions that can be conveyed based on the results of this study are (1) For teachers, namely, the results of this study are expected to be able to provide valuable experience and input regarding the use of tiktok learning media and pjbl models that can be used in learning music so that the learning outcomes obtained can be optimal. (2) For students, namely, the results of this study are expected to provide benefits and increase the enthusiasm of students in learning music, and teach students that tiktok can be used as a learning medium not just for playing facilities. (3) For other researchers, hopefully this research can be useful and can be used as a reference for similar or related research so that the research conducted can be more accurate than this research. can be generalizing findings according to research problems, and can also be recommendations for the next step.

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