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The Influence of Project-Based Learning Model Through Youtube Social Media on Students' Emotional Intelligence

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ABSTRACT

This study aims to determine the effect of a project-based learning model using social media YouTube on students' emotional intelligence in learning entrepreneurial themes. This research is a pre-experimental study with a one-group pre-test and post-test design. Respondents in this study were 30 grade VI students of SDN 3 Rawaheng. The data obtained is in the form of a normalized g-score. The analysis was performed using the T-test one group pre-test and post-test. Based on the results of the study, there was an increase in the mean value of each aspect of emotional intelligence. The average score of students' intelligence increased from 68.00 to 82.29 with an N-gain of 0.65 and sig * 0.00 <0.05

Keywords: Project-based learning models, YouTube, Emotional intelligence

INTRODUCTION

Emotional intelligence was first proposed in 1990 by psychologists Peter Salovey of Harvard University and John Mayer of the University of New Hampshire, America. Salovey and Mayer (1990) "Emotional Intelligence as the subset of social intelligence that involves the ability to monitor one's own and others, feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" [1]. Meanwhile, according to Goleman stated that emotional intelligence is the ability to recognize one's feelings and feelings of others to motivate oneself and manage emotions contained in oneself and others effectively [2]. Emotional intelligence can be observed when a person displays self-awareness, self-management, social sensitivity, and relationship management at the right time with sufficient frequency to be effective in certain situations [3].

Emotional intelligence has a significant influence on one's success. Goleman, through his research, said that emotional intelligence accounts for 80% of the determinants of a person's success, while the other 20% is determined by intellectual intelligence [4]. It is in line with Patton's statement, that people who have emotional intelligence can face challenges, make humans who are full of responsibility, productive in meeting and solving problems that are needed in the work environment [5].

Developing emotionally intelligent students requires conscious and planned effort in the field of education. By the SISDIKNAS Law no. 20 of 2003 that education is a deliberate and planned effort to create an atmosphere of learning and the learning process so that

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students actively develop their potential to have religious-spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves and society. Current education faces a big challenge because of this covid-19, pandemic. One of the most significant effects is the closure of schools, from early childhood education, primary and secondary schools to universities. Instead, then use a distance learning system.

Distance learning which is applied to break the chain of Covid 19 raises concerns, one of which is the reduced social attitudes among students. In their research, Aswat et al. (2021) concluded that the development of students' emotional intelligence in elementary schools during distance learning had an impact on decreasing the level of dynamic management of students in several aspects; broadly, speaking, this change occurred due to unpreparedness between students, teachers, and parents. facing different learning situations [6].

The development of emotional intelligence cannot be taught through the lecture method, because emotional intelligence is an active process [7]. One learning model relevant to the development of students' emotional intelligence is a project-based learning model. Project-based learning is an instructional method centered on the learner. Instead of using a rigid lesson plan that directs a learner down a specific path of learning outcomes or objectives, project-based learning allows in-depth investigation of a topic worth remembering more about [8]. Another opinion states that Project-based learning is the instructional strategy of empowering learners to pursue content knowledge on their own and demonstrating their new understandings through a variety of presentation modes [9].

The characteristics of Project-based learning are developing students' thinking skills, allowing them to have creativity, encouraging them to work cooperatively, and leading them to access the information on their own and demonstrate this information. PBL usually require students to participate willingly in the meaningful learning activities proposed, mostly teamwork [10]. Moreover, project-based learning has several stages to follow, namely: planning the projects, monitoring, scaffolding, adjusting or troubleshooting strategies, assessing students, and evaluating projects [11].

The learning applying PjBL also will improve the students learning motivation. It can be viewed when the students try hard to complete the project. In addition, PjBL will create the enjoyable learning atmosphere because the carried-out projects are challenging which is not found in the learning of the other subjects, therefore the students will be active and enjoy the learning process [12].

The use of project-based learning models cannot be done face-to-face due to the COVID-19 pandemic. Learning must be done remotely by utilizing technological devices. In this project-based learning, researchers use social media YouTube as a learning tool. Youtube is the world's largest online video-sharing website. Students use Youtube to upload products from project-based learning. This learning is applied to the entrepreneurial theme in class VI SDN 3 Rawaheng.

The Entrepreneurial theme equips students with entrepreneurial knowledge and skills. In entrepreneurial activities, emotional intelligence is needed. This is supported by research by Khoerunnisa (2018), "the relationship between emotional intelligence and entrepreneurial intentions" and Ifham "the relationship between emotional intelligence and entrepreneurship in students." Both studies prove a relationship between emotional intelligence and entrepreneurship. To train students' emotional intelligence can take advantage of project-based learning. According to the results of research from Rohayati

(2015), "the effect of project-based learning on student learning outcomes and entrepreneurial spirit." The studies above were developed before the COVID-19 pandemic.

MATERIAL AND METHODS

Methods

This type of research used in this research is pre-experiment. In this experimental design, there is no control variable (control class), and it is not chosen randomly. It is said to be a pre-experimental design because this design is not a severe experiment, because there are still external variables that influence the formation of the dependent variable. So, the experimental results, which are the dependent variable, are not only influenced by the independent variable. The research design used was one group pre-test post-test because the researcher wanted to know the increase in students' emotional intelligence before and after the treatment.

Instrument

This research was conducted at SD Negeri 3 Rawaheng in the odd semester of the 2020/2021 school year. The population in this study were students of SD Negeri 3 Rawaheng, which consisted of 143 students, while the sample was class VI with 30 students. The determination of the sample class was carried out using the purposive sampling technique, namely the technique of determining the sample with specific considerations [13]. In this study, there is an independent variable, namely a project-based learning model using social media YouTube, while the dependent variable is students' emotional intelligence.

The steps used in project-based learning (PjBL) as developed by The George Lucas Educational Foundation are 1) Problem recognition (Defining Fundamental Questions). The teacher arouses students' interest in the topic of Business Around Me, encourages students to think critically, and builds students' ability to relate events that occur around them to the topic being discussed. 2) Preparation of Project Design. The teacher organizes students in working groups, builds cooperation among students, builds communication between students, involves students in the planning process, and finds project designs. 3) Preparation of Work Plan. The teacher identifies entrepreneurs who are around the student's residence, and identifies questions to be asked in the interview. 4) Project implementation and monitoring. The teacher monitors the implementation of the project through the WA group and discusses the problems faced by the students in implementing the project. 5) Testing Results (Presentation). The teacher receives videos from interviews with entrepreneurs from each group and then uploads videos from the interviews to Youtube. 6) Evaluation and Reflection. In learning through Google Meet, the teacher asks each group to share their interview experience. Next, the teacher stimulates students to reflect on the activities that have been carried out and provide input on the results of student work.

The instrument used to determine students' emotional intelligence is a test adapted

from Goleman (2005) in the form of a free content multiple choice test which reveals five aspects of emotional intelligence, namely 1) self-awareness with indicators, (a) insoluble in emotions and not overreacting to what feelings, (b) can control feelings of anger, sadness, pleasure, and disappointment, (c) can calm mental tension. 2) self-regulation with indicators, (a) having positive feelings about yourself, other people, and family, (b) being able to control emotions, (c) having sensitivity to conscience, (d) entertaining yourself and releasing anxiety, (e) able to rise from stressful conditions. 3) motivation with indicators, (a) make serious efforts to arrange steps to achieve goals, (b) arouse enthusiasm to be better, (c) take the initiative and act effectively, (d) think optimistically, 4) empathize with indicators, (a) have empathy for others, (b) able to understand other people's perspectives, (c) sensitive to other people's feelings, (d) creating trusting relationships with others, and 5) social skills with indicators, (a) assertive and skilled in communicating, (b) creating relationships with other people, (c) warm-hearted, kind, and always respectful, (d) have lots of friends.

Procedures

The emotional intelligence instrument, both pre-test, and post-test consists of 40 multiple-choice questions. This instrument was tested for validity, the equivalence of pre-post questions, and reliability so that it is said to be feasible to use to collect data in research. The truth of the contents of the instrument used the Gregory formula. From the test results, the content validity coefficient for the emotional intelligence test, both pre-test, and post-test, was 1, with a very high category. The empirical validity test for emotional intelligence is carried out through field trials, and the calculation uses the product-moment correlation formula; from the test results, it is found that 30 items of emotional intelligence are declared valid (r> 0.30), which means they can be used immediately, but the questions used filtered into 20 items. The questions that are declared valid represent all aspects of emotional intelligence. The equivalence test of the pre-test and post-test emotional intelligence instruments used the independent-sample t-test formula. The results of the equivalence test showed that the count was 0.081 with a significance value of 0.9361. If the significance level is $\alpha = 0.05$, the significance value is much greater than α. This means that the pre-test and post-tests for emotional intelligence are equivalent. The reliability test of emotional intelligence instruments was carried out using the Alpha Cronbach formula.

The results of the reliability test for the emotional intelligence instrument showed that the Cronbach alpha value was 0.867 for the pre-test questions and 0.865 for the post-test questions, each of which was categorized as very high. The equivalence test of the pre-test and post-test emotional intelligence instruments used the independent-sample t-test formula. The results of the equivalence test showed that the count was 0.081 with a significance value of 0.9361. If the significance level is $\alpha = 0.05$, the significance value is much greater than α. This means that the pre and post-tests for emotional intelligence are equivalent. The reliability test of emotional intelligence instruments was carried out using the Alpha Cronbach formula.

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The data collection technique used was to collect data from the pre-test, and post-test scores of emotional intelligence, carried out before and after each research group was given treatment. The qualification of data from the pre-test and post-test scores of emotional intelligence was carried out using the five-scale Standard Reference Assessment (PAP) conversion guidelines presented in Table 1.

Table 1. Emotional intelligence qualification criteria

No.	Criteria	Qualification
1	85% - 100%	Very good
2	70% - 84%	Good
3	55% - 69%	Enough
4	40% - 54%	Less
5	0% - 39%	Very less

Data processing in this study begins by calculating the pre-test and post-test values. Furthermore, the pre-test and post-test scores were also analyzed using the one group T-test pre-test and post-test using SPSS-21 software. With the hypothesis Ho: if there is no increase in students 'emotional intelligence and Ha: there is an increase in students' emotional intelligence. With the decision-making criteria, if sig *> 0.05, then Ho is accepted, while if sig * <0.05, then Ho is rejected. Then, the effect of a project-based learning model utilizing social media youtube on students' emotional intelligence was determined using a normalized profit analysis.

Furthermore, from these data, the normalized score gain data (g) is obtained with the following formula:

$$\text{Normal gain (g)} = \frac{\text{Nilai post test} - \text{nilai pre test}}{\text{Nilai max} - \text{Nilai pre test}}$$

With the normalized gain criteria compiled by Hake [14] can be seen in table 2.

Table 2. Criteria for normalization gain

Normal gain (g)	Criteria
(<g> ≥0.7	High
0.3 <(<g>) <0.7	Moderate
(<g>) <0.3	Low

The data on the results of students' emotional intelligence tests on the entrepreneurial theme obtained were analyzed using the gain to see the difference between the post-test and pre-test scores. Then to find out the increase in students' emotional intelligence used the N-gain formula and the significant value used the one group T-test pre-test and post-test using SPSS 21.

RESULTS AND DISCUSSION

Developing and Validating

The data on the results of students' emotional intelligence tests on the entrepreneurial theme obtained were analyzed using gain to see the difference between the post-test and pre-test scores. Then to determine the increase in KPS, the N-gain formula was used, and the significant value was used in the T-test one group pre-test and post-test using SPSS 21. Average pretest, posttest, and sig * gain, and N-gain values can be seen in Table 3.

Table 3. Average Value of Pretest, Postest, Average Sig *, Gain, N-gain Category

Data Source	AVERAGE						
Student's Emotional Intelligence	N 30	Pre-Test 68	Post-Test 82.29	Sig * 	Gain 14.29	N-gain 0.65	Medium category

*Significant level 0.05

Based on Table 3, it can be seen that the results of the emotional intelligence test of students on the entrepreneurial theme have an average post-test of 82.29 with a sig * 0.00. Because the sig * number is 0.00 <0.05, the hypothesis Ho is automatically rejected. This shows that the post-test mean score of students' emotional intelligence significantly increased above the pre-test score of 68.00 with a gain score of 14.29 and a normalized gain score of 0.65 in the moderate category.

Discussion

If the data in the table is converted using the five scale absolute standard conversion guidelines, then the students 'emotional intelligence in the pre-test is an insufficient qualification with a score of 68. Meanwhile, the post-test score of students' emotional intelligence is 82.29 if converted to the five-scale absolute standard conversion guideline, then have high qualifications, while the control class has good capabilities.

Table 4. Emotional intelligence data

Description	Pre	Post
Total students	30	30
Mean	68	82.29
Standard Deviation	4.5	3,2
variance	15.3	12.6
Range	25	18
Minimum Score	50	68
Maximum Score	75	90

The description of the frequency distribution of the pre-test and post-test scores of students' emotional intelligence is presented in Figure 1.

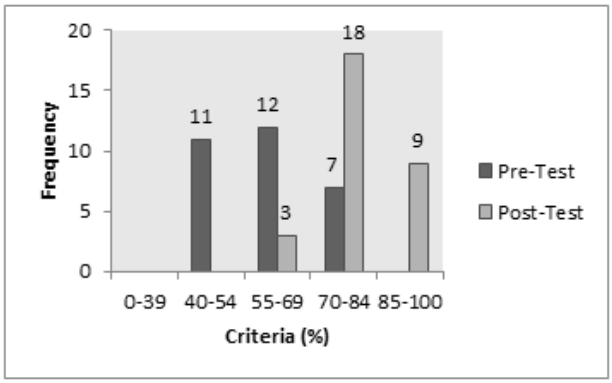

Figure. 1 The frequency distribution of emotional intelligence scores

Based on Figure 1, it was found that the frequency distribution of pre-test data on emotional intelligence was 36.66% of students who got a low category score, 40% of students got a sufficient category score, and 23.33% of students got a good category score. Meanwhile, the frequency distribution of the emotional intelligence post-test data contained 10% of students who got good category scores, 60% of students got excellent category scores, and 30% of students got excellent category scores. Based on these data, it is empirically proven that project-based learning using social media YouTube can improve students' emotional intelligence.

Furthermore, the average normalized gain score per indicator of emotional intelligence is presented in Table 5. The normalized gain score is obtained using a formula compiled by Hake. The normalized gain score in table 5 describes each indicator of emotional intelligence, which consists of recognizing one's emotions, managing emotions, motivating oneself, recognizing other people's feelings, and building relationships.

Table 5. The summary description of Normalized Gain Score per Emotional Intelligence Indicator

No.	Indicator Emotional Intelligence	Average Value of Normalized Gain Score
1	Recognizing self-emotion	0.65
2	Manage emotions	0.62
3	Motivate yourself	0.75
4	Recognizing other people's emotions	0.73
5	Build relationships	0.65

Based on the data shown in table 5 about the description of normalized gain scores per indicator of emotional intelligence, it can be explained that the hands of recognizing self-emotions, managing emotions, and building relationships are included in the moderate criteria. Meanwhile, indicators of self-motivation and identifying the feelings of others are included in the high standards. The comparison of the normalized N-Gain score can be seen more clearly in Figure 2 below.

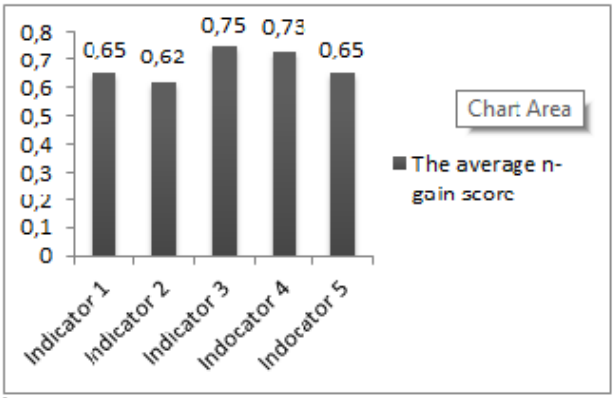

Figure 2. N-gain score on each indicator of emotional intelligence

Information:
Indicator 1: Recognizing self-emotion
Indicator 2: Managing emotions
Indicator 3: Self-motivated
Indicator 4: Recognizing other people's emotions
Indicator 5: Fostering relationships

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Figure 2 shows the difference in the acquisition of the N-Gain score for each indicator. The self-motivated indicator has the most significant increase in score with the N-Gain score (<g>) at 0.75. This increase can be seen from several aspects such as (a) making severe efforts to formulate steps to achieve goals, (b) arousing the enthusiasm to be better, (c) taking the initiative and acting effectively, (d) thinking optimistically. The significant increase in self-motivated indicators was due to the use of social media youtube.

Youtube media is a medium that is commonly used by students. They want to show their best work so that self-motivation will arise. The indicator that had the lowest increase was managing emotions. This indicator can be seen from several aspects, including (a) having positive feelings about yourself, other people, and family, (b) able to control emotions, (c) have sensitivity to conscience, (d) comfort yourself and release anxiety, (e) able to rise from stressful conditions. Students still need to improve emotional management when working in groups. However, the increase in the N-Gain score on the indicator of managing emotions is considered moderate.

Based on the results of the research obtained, it shows that the use of a Project-Based Learning Model by Utilizing Youtube Social Media affects the Emotional Intelligence of students in the medium category. The increase in the N-Gain score on the indicator of managing emotions was included in the moderate criteria. Based on the results of the research obtained, it shows that the use of Project-Based Learning Models by Utilizing

Youtube Social Media has an effect on students' Emotional Intelligence in the medium category. The increase in the N-Gain score on the indicator of managing emotions was included in the moderate criteria. Based on the results of the research obtained, it shows that the use of a Project-Based Learning Model by Utilizing Youtube Social Media affects the Emotional Intelligence of students in the medium category.

CONCLUSION

Based on the results of the research that has been done, it can be concluded that there are differences in students' emotional intelligence between before and after using a project-based learning model using social media YouTube on the entrepreneurial theme. The difference in emotional intelligence can be seen in the increase in normalized N-Gain scores with an average indicator of 0.65, in the moderate category. The increase in students' emotional intelligence can be found in each hand with the highest growth in self-motivating hands with an average N-Gain of 0.75, while the lowest increase is in the indicator aspect of managing emotions with an average N-Gain of 0.62.

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