

Instilling Positive Character Values through Project-Based Learning for Private Elementary School Students in Lampung Province, Indonesia

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Abstract: *Instilling Positive Character Values through Project-Based Learning for Private Elementary School Students in Lampung Province, Indonesia.* **Objective:** The research objective was to analyze the influence of the application of the project based learning model during the pandemic on the character values of third grade students of private elementary school. **Methods:** The research used a quasi-experimental method. A sample of 95 students was determined by random sampling technique. Character value data were collected using an open questionnaire with 12 statements. Data were analyzed by using paired sample t-test. **Findings:** Based on the reliability test, all aspects have a value of 0.973. The value of student character after being taught by project based learning was higher than before with a $\text{sig.} 0.000 < 0.05$. The character values of third grade of private elementary school students are formed from the aspects of generosity, cooperation, and leadership that are built with problem-based learning.

Keywords: learning during the pandemic, project based learning, character values, elementary school students.

Abstrak: *Menanamkan Nilai-Nilai Karakter Positif melalui Pembelajaran Berbasis Proyek pada Siswa Sekolah Dasar Swasta di Provinsi Lampung, Indonesia.* **Tujuan:** Tujuan penelitian ini adalah menganalisis pengaruh penerapan model pembelajaran berbasis proyek pada masa pandemi terhadap nilai karakter siswa kelas III SD swasta di Provinsi Lampung. **Metode:** Penelitian ini menggunakan metode eksperimen semu. Sampel sebanyak 95 siswa ditentukan dengan teknik random sampling. Data nilai karakter dikumpulkan dengan menggunakan angket terbuka dengan 12 pernyataan. Data dianalisis dengan menggunakan uji paired sample t-test. **Temuan:** Berdasarkan uji reliabilitas, semua aspek memiliki nilai 0,973. Nilai karakter siswa setelah diajar dengan pembelajaran berbasis proyek lebih tinggi dari sebelumnya dengan $\text{sig.} 0,000 < 0,05$. Nilai karakter siswa kelas III SD swasta terbentuk dari aspek kedermawanan, kerjasama, dan kepemimpinan yang dibangun dengan pembelajaran berbasis masalah.

Kata kunci: pembelajaran di masa pandemi, pembelajaran berbasis proyek, nilai karakter, siswa sekolah dasar.

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■ INTRODUCTION

Character values should be formed and nurtured from an early age, especially elementary school age. Because this age is a critical period for character building. Cultivating character values from an early age in children is the main key to build a civilized country. So that character education in elementary school children is the key to change the younger generation for the better (Nucci, 2014; Berkowitz, 2000, 2004). Character is a person's character, character, morals, or personality which is formed from the internalization of various virtues that are believed and used as a basis for point of view, thought, attitude and action, (Laming, 1993; Lee, 2016).

Under any circumstances character education must not stop, as well as during a pandemic. Character education in values is very important to be instilled in children of elementary school age, because it is aimed at developing values, attitudes, and behaviors that exude noble morals or noble character, (Mei, 2014). Elementary school children are still in the stage of concrete operational development, the stage where their intelligence begins to develop to think logically and systematically (Piaget, 1952). The values of character and character must be taught by teachers in elementary schools properly and correctly, so that they have a superior soul and personality. Character education in primary schools is a major factor in building the character of the young generation for the better.

Third grade students of elementary school have the ability to solve problems and think critically, are able to see the reasons behind an event / problem, and ask a lot of questions to gather information. Understanding the concept of cause and effect and make the concept / idea correlation deeper. Perform of math operations more difficult, such as division and multiplication. Make plans before doing anything. Still Can sit and pay attention to something interesting for 30-

45 minutes. And use complex sentences and various types of sentences to express his thoughts or opinions. With his abilities, in addition to obtain information related to completed tasks / projects, he will also obtain character values, (Piaget, 1952; Barron, 1998).

Project based learning is not only for developing critical thinking and problem solving skills, but also for providing experience in applying skills to real-world situations (Marcia, 2008). This learning is in line with the opinion of Merrill (2002), that students need to integrate what they have learned with the real world. The meaning is that it can be used to construct character values. Project-based education fits the demands of a pandemic, where learning is carried out through distance learning, and requires teachers to use a learning model that allows students to carry out activities at home (Pacheco, 2020). Learning focus is not only on academic achievement but also literacy, numeracy and character. The success of education requires collaboration and interaction between teachers, students and parents (Khazamula, 2019). This is a challenge in itself for most students, teachers and parents, because there are several problems that must be faced including limited facilities and infrastructure, geographic location and internet network, costs, and low mastery of technology, (Handayani, 2020).

Project based learning is one of the lessons that can be used to improve the quality of the process and learning outcomes (Bell, 2010; Fahrurrozi, 2014). The problem-based learning stage starts from: 1) organizing students into problems, 2) organizing students to learn, 3) assisting independent and group investigations, 4) developing and presenting works and exhibitions, and 5), analyzing and evaluating the problem-solving process.

Project based learning involves a project in the learning process to find a solution to a problem

(Stroller, 2006). Projects undertaken by students can be in the form of individual or group projects and are carried out within a certain period of time collaboratively, producing a product, the results of which will then be displayed and presented. The emergence of a project based learning model departs from the constructivist view of John Dewey (Grant, 2002) and refers to contextual learning (Schu, 2014). Project based learning applies contextual learning, where students play an active role in solving problems, making decisions, researching, presenting, and making documents. Project based learning is designed to be used on complex problems that students need to investigate and understand. Some of the advantages of project based learning include the following: (a) increased motivation, (b) increased problem-solving ability, (c) improved library research skills, (d) increased collaboration, and (e) increased resource-management skills, (Chon, 2012).

Project based learning will give students the opportunity to make meaningful learning. Students will be active, to find main ideas, solve problems or apply what they learn to real life, and students become productive (Kokotsaki, 2016; Krajcik, 2005). Students are invited to participate in all learning processes, not only mentally but also physically. In this way students will feel a more pleasant atmosphere so that learning outcomes can be maximized (Grant, 2011). Problems in project based learning are used as a context for students to learn critical thinking and problem solving skills, as well as to acquire essential knowledge and concepts from subject matter, as well as student performance (Hotchkiss, 1924; McMurray, 1920). Project based learning can change the mindset of students from narrow to broader and more comprehensive, when viewing and solving problems they face in real life, and students are nurtured to get used to applying knowledge, attitudes and skills in an integrated manner, so that they are expected to be useful

and practiced daily life, (Kaldi, 2011; Thomas, 2000). Although this model has a high level of complexity, the results achieved comprehensively improve all aspects, both affective cognitive and psychomotor, (Ma'arij, 2018; Kaldi, 2011; Delisle, 1997).

Character education has a significant and close correlation with a person's lifestyle (Larmer, 2010; Aynur, 2010). This can be conditioned by the teacher with project based learning which is very closely related to the scientific method, where students carry out observation activities, submit hypotheses and are tested using experiments (Ravitz, 2010, Boss, 2011, Bell, 2010). The scientific method, refers to a set of assumptions, attitudes and procedures used to research, ask questions, to get results and conclusions, (Hockenbury, 2000; Filippatau, 2010), to find the truth and formulate theories, (Ferrante, 2008; Yueyu, 2010).

Project based learning is an effective learning strategy for teaching values, because it places great emphasis on process rather than results. Project based learning is inquiry-based learning and is rooted in constructivism which emphasizes that knowledge is built by students on experience (Thomas, 2000, Frank et al., 2003, Mills and Treagust, 2003; Doppelt, 2005; Helle et al., 2006; Macías-Guarasa et al., 2006; Thomas, 2000; Heywood, 2016). Although various studies show project based learning is effective in developing character values, there are still many who do not understand this.

This study examines project based learning to develop character values for third grade students of private elementary school. Private schools tend to use the full day school system because in terms of time students stay in school longer, and this is able to support students' character application activities. Education with a full day school system is considered capable of providing a balanced portion of the scientific field

and religious-based moral values to students (Rohmawati, 2017). Full day school is one of the character education strategies carried out in the school environment (Wijaya, 2017). And third grade students as the appropriate age to shape and familiarize character values, (Piaget, 1952; Barron, 1998).

■ METHODS

Research Design

The method used in this research is quantitative survey. The population of the study was students in the third grade of private elementary schools in Lampung Province with a total of 945 students, the sample was determined by random sampling technique (Roscoe, 1975). The number of samples is determined by Isaac and Michael's Table (Isaac, 1981) with an error rate of 5%. The total sample size was 95 students (70 girls and 25 boys) third grade of primary school with an average age of 10 years in 5 schools in 1 school in East Lampung Regency, 1 school in Metro City, 1 school in Central Lampung and 2 schools in the city of Bandar Lampung.

Project based learning is designed and implemented for one semester in the odd semester of the 2020/2021 academic year. The research begins with a discussion between the researcher and the teacher to determine a suitable theme for learning with project based learning, namely the theme "changes in the form of objects". Learning designs were prepared by researchers, starting from learning planning, learning outcome of test instruments, learning media, projects that students had to complete which were realized in a guideline, namely student worksheets and questionnaires to measure character values. Learning is carried out by teachers online through Whats App (WA) social media and zoom meetings. Teachers deliver and explain assignments or projects to students, send materials and student worksheets. For example, for one week or for 6 days, the first

day for explaining the material and delivering assignments / the second to third day for completing projects independently at home, the next 3 days for reporting on completed projects by verbally conveying via voice message / voice note in WA. For two days students independently follow the steps in the student worksheets, starting from reading the written stimulus, preparing materials and tools, following the procedural steps, and finally being able to complete the assignment / project. In the fourth, fifth and sixth meeting, students independently reported their results to teachers and other friends online, as a form of their successful work. Each student will explain / present the steps taken to complete the task / project and the results that have been achieved along with the reasons, accompanied by a video recording with a maximum duration of 5 minutes, (Blumenfeld et al., 1991; Chang & Tseng, 2011). Each student's presentation takes a maximum of 25 minutes with a video on the process of completing the project. The presentation was criticized by teachers and other students, this is to measure the success of students in completing assignments, and character values. The teacher, in assessing the character of students, uses a questionnaire and is carried out when the student is presenting the assignment, apart from the final product in completing the assignment / project.

Data Collection Instruments and Procedures

Student character data were collected using a semi-open questionnaire with 9 character values arranged hierarchically based on the importance of these values for students, total of 12 statements. Each statement is given five answer choices, namely: Strongly Agree (SS) score 5, Agree (S) score 4, Disagree (KS) score 3, Disagree (TS) score 2, and Strongly Disagree (STS) score 1.

Table 1 shows the reliability value of the character value questionnaire instrument. Based on the reliability test, all aspects have a Cronbach's Alpha value of 0.973, thus all items in the questionnaire are reliable and all instruments are internally consistent because they have strong reliability (Maier, Wolf & Randler, 2016; Bonett, Wright, 2015;

Sebastian Rainsch, 2004). Learning motivation data after being tested with the one-sample Kolmogorov-Smirnov test (Yu, 2008) are normal. This shows that the samples are normally distributed. Based on the homogeneity test using Oneway Anova (Donald, 2010) it is known that the sig. $0.100 > 0.05$, indicating that the sample is homogeneous.

Table 1. Reliability value of character instrument aspects

No	Character Values	Total
1.	Love of God	0.84
2.	Honesty	0.86
3.	Humble	0.85
4.	Independence and responsibility	0.90
5.	Confident and hardworking	0.88
6.	Tolerance	0.90
7.	Sharing	0.90
8.	Respect and courtesy	0.91
9.	Leadership	0.88

Data Analysis

Chronbach's Alpha test used to determine the level of consistency of the questionnaire instrument used to measure character values, so that the questionnaire is reliable for measuring variable character values. Reliability test results are shown in Table 2. The data were analyzed by correlation analysis and paired sample t-test. Correlation analysis is used to see the degree of closeness

of the correlation between character values expressed in the correlation coefficient value. Paired sample t-test is one sample t-test design (Donald, 2010), to compare the character values of students before and after learning using project based learning. Data were analyzed using SPSS version 23 for Windows (IBM Corp., Armonk, US), and statistical significance was accepted for a p value < 0.05 . The data analysis steps are shown in Table 2.

Table 2. Data analysis steps

Steps	Goal	Analysis
1	Reliability	Chronbach's Alpha test
2	The correlation between variables	Correlation analysis
3	Different test before and after treatment	Paired Sample t-test

RESULTS AND DISCUSSION

The means and standard deviations of the 9 character values were compared. Table 3 shows that the highest mean is the good and humble aspects of 29.26 ± 2.86 , followed by independence and responsibility for learning with an average of 25.13 ± 3.571 , sharing 23.40 ± 3.68 , honesty with an average -average 23.19 ± 3.47 , independence and responsibility with an

average of 25.13 ± 3.50 , love of God and all creation and leadership and justice with an average of 23.11 ± 2.71 , respect and courtesy with an average of 23.02 ± 3.72 , self-confident and hardworking 22.17 ± 2.63 , and tolerance with a mean of 21.10 ± 3.91 . Of the 9 character values the lowest is tolerance and the highest is kind and humble.

Table 3. Mean and deviation standard of character values

No	Character Values	Mean	Std. Deviation
1.	Love of God	23.11	2.71
2.	Honesty	23.19	3.47
3.	Humble	29.26	2.86
4.	Independence and responsibility	25.13	3.50
5.	Confident and hardworking	22.17	2.63
6.	Tolerance	21.10	3.91
7.	Sharing	23.40	3.68
8.	Respect and courtesy	23.02	3.72
9.	Leadership	23.11	2.71

There are nine aspects of student character values and analyzed by Correlation analysis. Table 4 shows how the character values correlate between aspects. The results presented in Table 7 show that leadership values have a significant correlation with

humble values with $r = .891$ and $p < .005$. The sharing value has a significant correlation with the tolerance value with $r = .885$ and $p < .005$. The correlation analysis of these two character values cannot illustrate a closer correlation between the other values.

Table 4. Intercorrelation of character values

Value	A		B		C		D		E		F		G		H		I	
	R	Sig	R	Sig	R	Sig	R	Sig	R	Sig	R	Sig	R	Sig	R	Sig	R	Sig
A	-	-	.659	.000	.777	.000	.809	.000	.399	.018	.558	.000	.533	.001	.680	.000	.669	.000
B	.709	.000	-	-	.720	.000	.524	.001	.521	.001	.668	.000	.586	.000	.567	.000	.588	.000
C	.659	.000	.524	.001	-	-	.567	.000	.513	.002	.756	.000	.791	.000	.852	.000	.668	.000
D	.680	.000	.852	.000	.657	.000	-	-	.607	.000	.546	.000	.731	.000	.731	.000	.722	.001
E	.533	.001	.791	.000	.675	.001	.586	.000	-	-	.560	.000	.607	.000	.607	.000	.736	.002
F	.399	.018	.513	.002	.712	.002	.521	.001	.540	.001	-.685	-	.542	.000	.670	.000	.678	.000
G	.522	.000	.568	.000	.654	.000	.666	.000	.665	.000	.885	.001	-	-	.744	.000	.467	.001
H	.511	.000	.662	.000	.670	.000	.715	.000	.670	.001	.783	.002	.660	.001	-	-	.567	.001
I	.545	.001	.645	.001	.891	.001	.515	.001	.659	.001	.567	.000	.590	.001	.456	.000	-	-

Regression analysis was carried out to ensure whether the character values caused by project based learning were predicted by the value of sharing and leadership, and to identify whether the two character values were predicted by project based learning. The value sharing and leadership variables act as independent variables for project based learning.

The sharing value contribution to the significant character value is 0.000 because it is less than 0.05. Because it is significant, there is an influence between sharing values and leadership on character values. The amount of contribution given by the sharing value to the character value is 0.392 or 39.2%, where 60.8% of the character value is influenced by other factors. The amount of contribution given by the leadership aspect to the character value is 0.331 or 33.1%, where 66.9% of the character value is influenced by other factors. It is known that the constant values of the sharing values are 67.136 and 1.721, so that the regression equation $Y = 67.136 + 1.721X$ is obtained. That is, when students get a sharing value of 10, it can be predicted that the character value is $Y = 67.136 + 1.721 \cdot 10 = 67.136 + 17.21 = 84.346$ While the constant value of sharing value is 75.599 and the value of leadership is 1.160, so that the regression equation $Y = 75.599 + 1.160X$ is obtained. That is, when students get a character

value of 10, it can be predicted that the character value is $Y = 75.599 + 1.160 \cdot 10 = 75.599 + 11.6 = 87.199$.

Sharing value and leadership contribute to character values. The results of the analysis show that the two aspects predict significantly the character value. The most obvious contribution of variance was sharing ($\beta = 684$), followed by leadership ($\beta = 637$). It can be said that the value of sharing and leadership has the potential to shape character values.

As discussed earlier, shared values and leadership were significantly correlated with character values. To find out which of the two independent variables acted as predictors of learning outcomes, multiple regression analysis with a stepwise approach was carried out. As shown in Table 5, when two independent variables were included in the equation, only the sharing variables were statistically significant in predicting the character values. The analysis showed that sharing value predicted to make the best contribution to character ($\hat{\alpha} = .392$, $p < .01$). It was found that sharing values contributed 39.2% and leadership values contributed 33.1% to character values. In particular, the variable of sharing value and leadership significantly predict character values. This is confirmed by the research of Kyong-Jee Kim (2020), Kathleen Harris (2013) dan Farida (2019).

Table 5. Regression analysis of sharing value and leadership

Variable	B	SE B	Beta (β)	T	Sig
Sharing	1.721	.297	.392	5.217	.000
Leadership	1.160	.268	.331	3.658	.001

The sharing value character and leadership that are not in the first priority dominate the character formation of elementary school students through project based learning during the pandemic which is conducted through online. Online that is done by students when completing

assignments independently, so that it will form leadership values, and sharing is formed when they present the results of the assignments that have been completed. Other main values that shape character, namely the value of love of God, honesty, kindness and humility, independence and

responsibility, self-esteem, tolerance, compassion and courtesy have become habits for elementary school students. This is formed through the non-formal education environment which is the first and foremost place to shape these values. This is manifested in the lives of children in Indonesia from an early age informally both in the family and in kindergarten. These values have been used by families at home and non-formal education in kindergarten, (Alif, 2020; Dewantara 2020; Hambal 2020).

The results of descriptive statistical analysis, the average pretest value is $62,766 \pm 13,820$ with an average standard error of 1,232 and an average post-test score of $81,654 \pm 15,766$ with a standard error of 2,323. The results of the correlation analysis between the two data pairs, namely the pretest and post test scores. The correlation coefficient is .867 with sig .000. This shows that the two data pairs are correlated.

The results of the average difference between the pretest and post test scores. The test results found that the t value is -11.891 < 1.998 with sig (2 tailed) 0.000. because the t count value is smaller than the t table and sig < .005, this indicates that there is a difference between the pretest and post test scores. Thus there are differences in student character values before and after being taught using project based learning, after being taught with project based learning, third grade students of elementary school have higher character values than before.

Based on the analysis, it appears that the formation of student character values during the pandemic was higher after being taught by project based learning designed through online (Cheng, Wang, Huang, & Zarifis, 2016; Lin & Tsai, 2016; McGreal & Elliott, 2008.), and independent than before being taught with project based learning, this is in accordance with the research of Jian-Wei Lin (2019), which found many weaknesses when project based learning

was developed in groups. Thus, project based learning independently proved to be able to increase the character value of students. From these findings, it is evident that the character values in learning are developed in accordance with the subject matter presented explicitly and associated with students' daily lives. The integration of character education can be done through three components of learning, namely planning, implementation and evaluation of learning activities. This will be realized with a project based learning model, because it will make intact character education and not learned separately, students gain meaningful knowledge and experience, (Hignasari, 2020; Thomas, 2000; Frank et al., 2003; Mills and Treagust, 2003; Doppelt, 2005; Helle et al., 2006; Macías-Guarasa et al., 2006).

Project based learning is a learning model using problems as a first step in collecting and integrating new knowledge based on students' experiences in real activities in the environment. Project based learning design is used for complex problems that students need to investigate and interpret a concept (Helle, Tynjala, and Olkinuora 2006). Project based learning is learning that involves students to complete a project that is useful in solving problems that are directly related to society or the environment (Barron et al. 1998). The process of completing a project will familiarize students with interacting with students and learning resources. Thus it will be able to instill character values. Delivering project results will also familiarize students with positive thinking and good behavior, because they gain experience to practice being accountable for the results of projects that have been completed, practice responding, conveying messages, and answering questions, (Setiono, 2020; Diarini, 2020; Mustofiyah, 2020) . Project based learning uses authentic projects and provides a more active experience, encourages students to investigate,

collaborates with friends and connections with the world outside the classroom, and builds collaboration in completing project designs (Suzie, 2007; Jane, 2013). This is confirmed by the research of King, B (2020).

Character education will always develop noble morals and good habits for students (Kirsten, 1996; Grace, 2019). According, Lickona (1991), there are several values of goodness that need to be lived and accustomed to in student life in order to create a harmonious life in the family and society. The values that need to be used in life are honesty, compassion, self-control, mutual respect or respect, cooperation, responsibility, and persistence. These values are in accordance with the character values that must be developed in elementary schools. For this reason, in developing character education, the school must work together with the families or parents of students, (Khazamula J, 2019; Aprilianto, 2020; Ahmadi, 2020; Asbari, 2020).

Character education is very important to be developed in educational institutions both formal and non-formal (Khazamula J, 2019; Haerullah, 2020; Fathurrahman, 2020). Character education in schools requires a supportive environment to develop good values. This will be achieved, if the teacher chooses a learning model that is able to enable students to learn outside the classroom / at home (Evers and Spencer 2011, 218). and schools with various learning resources. This is similar to the findings (Christopher, 2019; Hotchkiss, 1924; McMurray, 1920). This student-centered strategy builds critical thinking and reasoning skills, increases student creativity and independence, and helps students gain a sense of ownership of their own work. In classroom, the teacher acts as a learning guide, providing space for students to increase independence and build creativity and character values. Schools that use this learning become more flexible, giving teachers greater

freedom to direct their students and organize their own activities. Helping students master the information needed to solve problems and build analytical reasoning skills is essential for building the character, (Delisle, 1997, Thomas 2000, Frank et al. 2003, Mills and Treagust 2003, Doppelt 2005, Helle et al. 2006, Macías-Guarasa et al. 2006). Project based learning, as an option to teach character, is reinforced by research (Evan, 2017, Dym, 2005).

■ CONCLUSIONS

Private schools are one of the bases where character is formed, because they have a longer learning time. The application of project-based learning during the pandemic as an intervention for the formation of character values in elementary schools in the third grade. The character of third grade students increased because they were accustomed to solve problems designed by the teacher in a project that was completed independently. The value of student character is accustomed to the sharing value and leadership. The formation of character values during a pandemic through students' experiences in projects carried out at home independently.

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