

# Improving Prosocial Behavior Through Virtual Media Based on Religious Values in Elementary School Students

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## ABSTRACT

Prosocial behavior is important for every individual from an early age. This behavior can teach each individual to be able, share, cooperate, be generous, help and practice honesty. The level of students' prosocial behavior can also affect their academic achievement, so there needs to be an intervention to improve students' prosocial behavior since elementary school. To improve prosocial behavior in elementary school students, researchers provide treatment through virtual media based on religious values. This study uses a quasi-experimental design with a non-equivalent control group design model. Respondents in this study amounted to 24 respondents consisting of 2 groups, namely the control group 14 respondents, and the experimental group 14 respondents. Measuring the level of students' prosocial behavior using a prosocial behavior scale instrument consisting of 15 items. Data analysis was carried out using the Wilcoxon signed-rank test to determine differences in the prosocial behavior of respondents before and after the intervention and the Mann Whitney test to see differences in the level of prosocial behavior of respondents between the experimental group and the control group. The results showed that virtual media based on religious values had a positive impact on improving the prosocial behavior of elementary school students. The implications of the results of this study can be used as a basis for decision-making to help students' problems, especially prosocial behavior.

**Keywords:** prosocial behavior, virtual media, religious values

## INTRODUCTION

Achievement in the academic field must be the goal of every individual and parent while at school. One of these academic achievements can be influenced by the level of individual prosocial behavior (Ma, 2003; Zimmerman, 1989b). Individuals who have high prosocial behavior tend to be more accomplished than individuals with low prosocial behavior (Ma, 2003; Zimmerman, 1989b). Aljarrah & Khataybeh (2021) prosocial behavior is also one of the skills that must be mastered in the 21st century. Prosocial behavior is a form of behavior that emphasizes the interests of others above personal interests (Baron & Byrne, 2005). Prosocial behavior needs to be possessed by individuals from childhood as the basis for the development of children's abilities to interact with their environment more broadly outside the family environment (Sugandhi et al., 2020). Prosocial behavior that needs to be instilled in children is related to empathy, positive sympathies, such as altruistic behavior and helpful behavior (Batson, 2010; Eisenberg et al., 2016; Spinrad & Eisenberg, 2009, 2015).

Efforts to improve prosocial behavior in elementary school students have often been carried out, including using play therapy (Agustin et al., 2015; Pratama, Hidayah, et al., 2019; Smith, 2014). The second intervention uses virtual media to shape positive behavior for elementary school students (Feng et al., 2020; Luo et al., 2020; Pradana et al., 2020). The next intervention uses a game strategy with collaboration, problem-solving, critical thinking/inquiry, global awareness, and the use of technology (Smith, 2014). In addition to these strategies, several studies have also been conducted

studies on the development of prosocial behavior that is influenced by subjective well-being in elementary school-aged children (Chen et al., 2020; Liu et al., 2020; Su et al., 2019). The relationship between gratitude and student satisfaction has also been shown to influence the formation of students' prosocial behavior (Tian et al., 2016). Previous research studies indicate that a strategy is needed to develop prosocial behavior for elementary school students, which combines the design of development programs, motivation, modeling, games, paying attention to aspects of student welfare, integrating religious values, and utilizing technology (Feng et al., 2020; Kuswendi, 2019; Luo et al., 2020; Setiawati & Ernawati, 2020).

Based on the results of the study above, strategies to increase prosocial behavior can be carried out with a comprehensive strategy by combining technological developments and

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inculcating religious values simultaneously, and this is still rarely done by previous researchers. In this study, the treatment was carried out by using virtual media based on religious values as an effort to improve the prosocial behavior of elementary school students. The use of virtual media is provided by counselors through classical services by including religious values. Interventions with virtual media based on religious values can influence cognitive, affective and train students' skills such as in the form of behavior; helping, sharing, cooperating, generous and telling the truth since elementary school age. Based on these problems, this study wants to test whether the intervention with virtual media based on religious values is effective in increasing students' prosocial behavior?.

## METHOD

### Research Design

This research was conducted at SD Negeri 1 Taji, Karas Magetan District, East Java, Indonesia. The design used in this study is a quasi-experimental design with a non-equivalent control group design model. Sampling was carried out purposively on the consideration of the level of prosocial behavior of the respondents, thus making the researchers choose a quasi-experimental design (Sugiyono, 2015; Wiyono, 2007). The effectiveness of the treatment can be seen by testing the difference in the results of the intervention between the experimental group and the control group (Sugiyono, 2015; Wiyono, 2007). The instrument used to measure the pre-test and post-test for both groups is the same, namely the prosocial behavior scale, this is an effort to anticipate the threat of internal validity (Creswell, 2013). Researchers also limit the characteristics of respondents, to anticipate the threat of external validity (Creswell, 2013).

### Intervention Procedure

The intervention is given classically with stages including the initial or preliminary stage, this stage is carried out to ensure the readiness of participants to enter the next stage. The second stage is the core stage or activity, at this stage, the counselor facilitates the service, by delivering prosocial behavior material with virtual media based on religious values. The third stage, namely the closing and evaluation stages, at this stage is intended to ensure that the services provided provide benefits for participants (Kemendikbud, 2016; Prayitno, 2017). The intervention stages between the control group and the experimental group were the same, the difference was the media for delivering the material. The control group for service delivery was provided with simple PowerPoint media and the experimental group used virtual media based on religious values. The virtual media in this study is in the form of animated videos by integrating Islamic values according to the learning achievements of elementary school children. The

material is presented in the form of a simple animation, paying attention to Islamic values that will be instilled so that students do not experience boredom when listening to the video being played. This media has also been tested by media experts and content experts, which stated that the media can be used to provide treatment to students.

The intervention in this study was carried out three times with a duration of 45 minutes per session. The intervention of the first meeting focused on the theme of helping and sharing according to Islam, the second meeting with the theme of sharing and generosity according to Islam, and the third meeting with the theme of honesty according to Islam. These three meeting schedules are expected to be able to facilitate the formation of prosocial behavior as a whole since elementary school age. Brief intervention by adopting the concept of Solution Focus Brief Counseling (SFBC) (Mulawarman et al., 2016). In addition to adopting the SFBC concept, researchers also pay attention to aspects of child welfare by maximizing the role of virtual media combined with simple games to provide meaningful learning for students (Feng et al., 2020; Luo et al., 2020; Mayfield et al., 2017; Streimann et al., 2020). Next, Islamic values were chosen because all respondents were Muslim and the results of previous research showed that the integration of Islamic values was effective in helping research respondents' problems (Faiz et al., 2019; Kadafi, 2016; Kadafi et al., 2021, 2019; Kadafi, Pratama, et al., 2020; Kadafi, Suharni, et al., 2020; Kadafi & Ramli, 2017).

### Participants

In this research, the respondents were 28 elementary school students which were divided into two, namely, 14 respondents as the experimental group and 14 respondents as the control group. The determination of respondents based on the level of prosocial behavior is still low. The sample was taken by purposive sampling technique, this technique was chosen to obtain a sample according to the needs of the researcher or according to predetermined criteria, namely the category of low prosocial behavior (Sugiyono, 2015). The characteristics of the respondents include difficulty to share, unwilling to help, unwilling to donate, difficulty to cooperate, and miserly (Eisenberg et al., 2015; Hudaniah & Dayakisni, 2009; Pratama, Kadafi, et al., 2019). The detailed condition of the respondents' prosocial behavior is presented in table 1, the table shows that the two groups of respondents' prosocial behavior are in the moderate category. The category of respondent's prosocial behavior is used as the basis for determining the research sampled purposively. Measurement of prosocial behavior is done with a prosocial behavior scale instrument.

### Instrument

Respondents' prosocial behavior data was measured using a prosocial behavior scale developed from the prosocial instrument Pastorelli et al (1997) and referring to indicators

of prosocial behavior from Eisenberg et al (2015); Hudaniah & Dayakisni, (2009); Pratama et al (2019), namely: sharing, helping, donating, collaborating, and generous behavior. The prosocial behavior scale consists of 15 items and uses a scale of 4. This prosocial behavior scale has passed validity and reliability tests. The results of the validity test of the prosocial behavior scale to 64 respondents showed the lowest value was 0.394 and the highest value was 0.926 and the r-table in the 5% significance level was 0.254. The results of the validity test of the prosocial behavior scale show that of the 15 items, all of them are declared valid because the results of the calculation show that the r-count is greater than the r-table. The results of the reliability test show a value of 0.869 or greater than the r-table of 0.254, which means that the instrument is declared reliable.

**Data Analysis**

The first data analysis used descriptive statistics to determine the percentage difference between the results before and after the test was carried out, and to determine the percentage difference between the control group and the experimental group. Testing the effectiveness of the intervention, the researcher used the Wilcoxon signed-rank test analysis to determine the differences in the prosocial behavior of respondents before the intervention and after the intervention in both the control and experimental groups and the Mann Whitney test to see differences in the level of prosocial behavior of respondents between the experimental group and the control group. The two analytical tests were determined by the researcher based on the non-fulfillment of the research assumptions and the provisions in parametric statistics. So the researchers set a non-parametric test to find out the effectiveness of virtual media based on religious values to improve the prosocial behavior of elementary school students.

**RESULTS**

**Descriptive data analysis**

The results of the research on the demographics of the participants obtained information, including age, gender, and level of prosocial behavior before being given treatment, both for the experimental group and the control group. Detailed information is presented in Table 1.

Table 1 shows the demographic information of the research respondents. In this study, researchers used 2 research groups, namely the experimental group and the control group. Each of these two groups consisted of 14 respondents. The age of respondents in the 9-year experimental group were 5 respondents, 5 respondents for 10 years, and 4 respondents for 11 years. The age of respondents in the control group is known: 9 years 4 respondents, 10 years 6 respondents, and 11 years 4 respondents. In the experimental group, there were 6 male respondents and 8 female respondents. For the control group, there were 7 male respondents and 7 female respondents. The results showed that there was a higher tendency for prosocial behavior at the age of 10 years or the fourth grade of elementary school. Girls are more likely to have higher prosocial behavior scores than boys. One of the reasons for this finding is that girls are afraid of other people’s negative judgments and adhere to norms more (Watanabe & Lee, 2016).

The latest information from table 1 is related to the level of prosocial behavior of respondents, in the experimental group the average level of prosocial behavior is 36.14 and the level of prosocial behavior in the control group is 36.86. The average level of prosocial behavior shows the level of prosocial behavior of respondents in both groups is in the medium category. Furthermore, data analysis to determine differences in prosocial behavior and the level of prosocial

**Table. 1.** Demographic Info of Experimental Group Participants and Control Group

Respondent Number	Experimental Group			Control Group		
	Age	Gender	Level of Prosocial Behavior	Age	Gender	Level of Prosocial Behavior
1	9	Male	38	10	Male	37
2	9	Female	38	9	Male	36
3	11	Male	39	10	Female	37
4	11	Female	40	11	Female	38
5	11	Male	39	11	Male	37
6	10	Female	39	11	Male	38
7	9	Female	38	9	Male	36
8	10	Female	38	10	Female	37
9	10	Female	38	10	Female	37
10	9	Male	36	9	Male	28
11	11	Male	39	10	Female	36
12	9	Female	37	10	Female	36
13	10	Male	38	11	Male	37
14	10	Female	38	9	Female	36

behavior of respondents before and after being given treatment (experimental group) is descriptively presented in table 2.

Table 2 shows that N or respondents in each group amounted to 14 respondents. The mean or average value of prosocial behavior before treatment was 38.21 and the average value after treatment that occurred in the experimental group was 50.71. The standard deviation before treatment was 0.975 and after treatment was 0.726. Looking at the results of this descriptive analysis, it is known that there are differences in respondents' prosocial behavior between before and after treatment, or an increase in the average score of 11.79. The results in the experimental group showed that giving treatment through virtual media based on religious values was able to increase individual prosocial behavior.

**The effectiveness of virtual media based on religious values in increasing prosocial behavior**

The results of the hypothesis analysis of the effectiveness of religious value-based virtual media seen from the values before and after treatment with the Wilcoxon signed-rank test, as well as the results of the different tests between the experimental group and the control group with the Mann Whitney test are presented in Table 3.

Table 3 shows the z-score of respondents' prosocial behavior in the control group of -2.714 and a significance value of 0.007. These results indicate that the significance value of prosocial behavior is 0.007, which is greater than the critical research limit of 0.05, which means that there is no difference in the level of respondents' prosocial behavior. between before and after treatment in the control group. The Z-score of respondents' prosocial behavior in the experimental group was -3.325 and the significance value was 0.001. These results indicate that

the significance value of prosocial behavior is 0.001 which is smaller than the critical research limit of 0.05, which means that there are differences in the level of prosocial behavior of respondents between before and after receiving treatment in the experimental group. The Mann Whitney test shows that the respondents' z-score of prosocial behavior is -4.583 and the significance value is 0.000. These results indicate that the significance value of prosocial behavior of 0.000 is smaller than the critical research limit of 0.05, which means that there are differences in respondents' prosocial behavior between the experimental group treated with religious value-based virtual media and the control group treated with conventional media. Based on these results, it shows that the treatment of respondents through the provision of interventions with virtual media based on religious values is effective in increasing the prosocial behavior of elementary school students ( $Z = -4.583; p < 0.000$ ).

**DISCUSSION**

The intervention in this study was conducted in three meetings. At the first meeting, the service was provided with the theme of helping and cooperating according to Islam. The value instilled at the first meeting is following the QS. Al Maidah verse 2, this verse calls for every Muslim to cooperate in goodness and QS. Al Hujurat verse 10, in this verse, shows that all believers are brothers, for that it is an obligation for every Muslim to cooperate with each other in goodness (Al-Quran, 2015). The second meeting instills the value of variety and generosity, which refers to the QS. Ali Imron verse 92 which teaches to give what we love and reminds us that our every behavior is known to Allah SWT, the second verse refers to the QS. Al Baqarah 267 which reflects the behavior of generosity, namely, giving the best of what we have to charity (Al-Quran, 2015). The third meeting instills the value of honesty according to QS Al Ahzab verses 70-71 which teaches every Muslim to speak the truth, be honest, straight and not deviate (Al-Quran, 2015). The internalization of prosocial values according to Islam is packaged in an animated video as a form of virtual media that can affect individual cognitive and have an impact on changing the behavior of elementary school students to become more prosocial. At each meeting, the researcher emphasizes each individual being able to evaluate and demonstrate new prosocial behavior based on the material that has been presented, as a form of higher-order thinking (Singh, 2018).

A simple and short intervention that is three times adopting the concept of a Solution Focus Brief Counseling (SFBC) approach (Mulawarman et al., 2016). In this study, researchers focus on the goals that have been set and design interventions with virtual media carefully. Media development is based on input from media and content experts. This short intervention is also to pay attention to aspects of student welfare, through virtual media combined with simple games

**Table 2.** Descriptive Analysis of Pre-Test and Post-Test Prosocial Behavior of the Experimental Group and the Control Group

Description	Experimental Group		Control Group	
	Pre-test	Post-test	Pre-test	Post-test
N	14	14	14	14
Mean	38,21	50,71	36,143	36,86
Std. Deviation	0,975	0,726	2,445	1,834
Minimum	36	50	28	31
Maximum	40	52	38	38

**Table 3.** Results of Prosocial Behavior Analysis through the Wilcoxon Signed Rank Test and the Mann Whitney Test

Test	z-score	p
Wilcoxon Signed-Rank		
Control Group	-2,714	0,07
Experimental Group	-3,325	0,001
Mann Whitney	-4,583	0,000

can provide meaningful learning for students (Feng et al., 2020; Luo et al., 2020; Mayfield et al., 2017; Streimann et al., 2020). Environmental conditions also affect the success of the student learning process more than the length or duration of the learning process (Bandura, 2012). The process of inculcating values that can influence individual behavior can be started from the immediate environment and at an early age (Apriani et al., 2018). One of the behaviors that need to be possessed by each individual is prosocial behavior as a provision for them to live in society and also to achieve success in learning (Zimmerman, 1989a).

The determination of elementary school students is not only based on the importance of inculcating character from an early age, but it is also because elementary school students are faced with living conditions at home and in the community that can contribute to stress and can have an impact on learning, behavior, and overall academic performance (Harpin et al., 2016). Rapid technological developments also trigger the emergence of maladaptive behaviors such as cyberbullying behavior (Aizenkot & Kashy-Rosenbaum, 2019). Adaptive mal behavior that appears can be reduced by strengthening prosocial behavior (Barón et al., 2018). Prosocial behavior can prevent bullying or other aggressive behavior among elementary school students (Grossman et al., 1997; McCarty et al., 2016). Strengthening and character building, especially prosocial behavior, should ideally be carried out since elementary school age (Chandler, 2006; Muslihati, 2019). Prosocial behavior appears when cognitive abilities show development, which can change expression over time, such as sharing behavior which is one of the important aspects of prosocial behavior (Flook et al., 2019). Cognitive empathy which consists of two factors, namely: sensitivity to the emotions (feelings) of others and perspective-taking, also has a positive relationship with prosocial behavior (Murakami et al., 2014).

Improved prosocial behavior and children's well-being can be achieved by utilizing virtual media combined with games (Feng et al., 2020; Luo et al., 2020; Mayfield et al., 2017; Streimann et al., 2020). The use of virtual media must also be accompanied by learning that facilitates collaboration, problem solving, critical thinking/inquiry, awareness, and the use of technology (Pletz, 2021; Smith, 2014). Environment-based virtual technology is a tool for teaching elementary school children social skills (Baker et al., 2009). Virtual learning can also help to reduce bullying behavior (M. et al., 2010). The use of technology will have a positive impact if it gets effective support from the school environment (Baisey, 2020). A conducive learning environment can develop students' prosocial behavior. Prosocial behavior consists of a set of behaviors that benefit others in the form of sharing and helping. A conducive and interactive learning environment plays an important role in creating the ability for students to develop prosocial behavior (Shin et al., 2019; Villardón-

Gallego et al., 2018). Effective classroom management from teachers has also been shown to be able to reduce aggressive behavior (Chuang et al., 2020). In addition to paying attention to environmental factors in the use of virtual media, it is also necessary to pay attention to aspects of students' psychological and social-emotional welfare (Bradshaw et al., 2012; Chen et al., 2020) as well as students' religious aspects in building students' prosocial (Kadafi, Suharni, et al., 2020). The results of this study indicate that student behavior can be influenced by the way students think and behave in responding to the existing stimulus (Bandura, 2012). Positive stimuli (internalization of religious values) through virtual media by paying attention to all aspects that affect individual development are very effective in influencing the formation of positive behaviors such as prosocial behavior

## CONCLUSION AND SUGGESTION

This study concludes that the use of virtual media based on religious values can affect the increase in prosocial behavior of elementary school students. The use of virtual media can make it easier for elementary school students to understand the material presented, besides that virtual media can influence students' emotions which provide an actual picture of what students should do. This finding also shows that the services provided by conventional media are not effective in influencing the prosocial behavior of elementary school students. Other findings show that prosocial behavior is an important thing that every student needs to have from elementary school age, to support their academic success.

This study still has limitations, including: research respondents are still limited and homogeneous in nature, so caution is needed in making generalizations. From the existing limitations, the researcher suggests conducting further research with more and heterogeneous respondents

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