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The Influence of Environmental Psychoeducation on Children's Empathy Skill in Community Reading Park

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Abstract---This research aimed to compare the empathy ability of children before and after acquiring the community-based psychoeducation with pro-green activities designed for environment conservation. This research used a quantitative design with Quasi Experiment: One Group Pretest-Posttest Design as the research design. The participants were 34 children with age 8 until 12 years old. This research used purposive sampling with the criteria such as 1) The children from Dusun Jayan, Desa Senting, Boyolali Regency, and 2) Age 8 until 12 years old. The results showed that the mean score before the activity was 70,62 and after the activity was 74,32. There was an increase score 3,7 with the significance score (Sig.2-tailed) of 0.035 ($p < 0,05$) and t -value = -2,194. Conclusion: 1). There was a positive significance between environment psychoeducation and children's empathy ability, and 2) The environment psychoeducation was effective to increase children's ability who play and learn at Taman Baca Masyarakat Panggon Sinau.

Keywords---children ability, children's empathy, community reading, environment psychoeducation, reading park

Introduction

An achievement-driven culture is deemed less supportive of the growth of empathic traits and attitudes. Empathy is an ability to understand and share the perspectives and feelings of another. This ability is rarely shared by the majority of people because modern culture tends to prioritize material achievements than holistic emotional well-being. The basis of empathy, self-awareness, and spiritual-emotional intelligence, is less developed through various socialization and internalization of value agents such as formal, informal, and non-formal educational institutions (Shah et al., 2014; Capurso & Ragni, 2016).

In Indonesia, the negative excess of a lack of empathy can be identified, among others, from the low corruption index and empathy index in comparisons among nations. The corruption cases continue to occur, including corruption in social aid aimed at poor and vulnerable people who have been affected by the COVID-19 pandemic (Kompas, 6 December 2020). Indonesia's corruption index is in "red", with a score of only 40 out of 100, ranking the country on 85th out of 180 countries surveyed by Transparency International (2019). Meanwhile, a global survey by Chopik et al. (2017), towards 104,365 adults from 63 countries to measure the level of community empathy, puts Indonesia in 20th place. In terms of empathy, Indonesia is under Ecuador with the highest level of empathy in the world, followed by Saudi Arabia at number 2, Denmark at number 4, South Korea at number 6, the United States at number 7. According to the survey, even the neighboring countries are more empathetic than Indonesia: Malaysia at number 11, and the Philippines at number 13. In experimental studies in 4 countries, i.e. Germany, Indonesia, Israel, and Malaysia, Trommsdorff et al. (2007), observed the responses of pre-school children playing with balloons and popped. They found that Indonesian and Malaysian children were less empathetic than children from Western countries who were usually considered as individualistic. In the first group, the general response was to laugh at a friend whose balloon popped or fell, while in the second group, the general reaction was to cheer, calm down and offer a replacement balloon (Baker et al., 2001; Suryasa et al., 2019; Suda, 2017).

Previous research has found that low empathy is related to the prevalence of problems that destroy social harmony, such as intolerance and discrimination of race, ethnicity, and religion (Rasoal et al., 2011). Other studies have found that a lack of empathy results in intolerance of persons with disabilities (Burkova et al., 2019). The waning character of empathy also has an impact on decreasing social care. Tyas' (2017), research shows that there is a positive influence between empathy and social care, meaning that the higher the empathy a person has, the higher the social care he has. In addition to social care, empathy will also affect prosocial or helping behavior. The results of Widiatmoko's (2017), research explain that there is a positive influence between the level of empathy of children and prosocial behavior; children with a high level of empathy will have a high level of prosocial as well.

The development of science and technology in an era of dynamic and rapid globalization has made a competitive climate world so that it requires intelligent, creative, and innovative human resources. However, the intellectual intelligence possessed by humans must always be supported by strong emotional intelligence,

so that advances in science and technology can be used for the benefit of all (masalahah ammah). One of the things that can balance intellectual and emotional intelligence is empathy (Goleman, 1998). Feist & Feist (2010), explain that empathy is the ability to understand or appreciate feelings by involving emotional, moral, cognitive, and behavioral aspects. Empathy can also be defined as how we can put our feelings in the position of others so that we can be careful and not easily judge other people's behavior or feelings (Myers, 2012).

This reality reinforces the understanding of the importance of applying empathy to a person. Therefore, the internalization of the value of empathy needs to be instilled and developed among children as early as possible so that they can understand the situation of others, feel what others feel, and learn that not every single wish can be fulfilled. The development of empathy skills, among others, can be done through education in schools, families, and surroundings (Roslina, 2013). Children's empathy abilities can be nurtured and developed by a variety of approaches, including through stories/fairy tales, exemplary, verbal advice, games, examples of habituation, and direct experience. The results of Pontania & Salim's (2019), study found that children can learn empathy through parenting and education in schools, children will model and adopt the behavior and expressions of their parents, teachers, or other adults with whom they interact (Anvari et al., 2002; Fristad et al., 2003).

The research results by Lithoxoidou et al. (2017), explain that the empathy that must be cultivated in children is not only empathy for fellow humans, but empathy for all living things (such as animals and plants). A comprehensive understanding of children's empathy will make them better apprehend that every behavior they do has consequences for their surroundings. The results of research by Zainudin & Ediati (2017) explain that there are significant differences in the ability of empathy between before and after children receive environmental education. Environmental education can make them understand what is around them and realize the position of every creature in their environment. Based on this description of the problem, this study examines the effect of environmental psychoeducation on empathy in children. This research aims to compare the differences in empathy skills in children before and after receiving community-based psychoeducation treatment in the form of pro-green activities for environmental conservation.

The subjects in this study were 34 children aged 8-12 years old. Hosnan (2016), divides child development into early childhood aged 2 years old to 6 years old and late childhood aged 6 years old to 13 years old. Yan et al.'s (2017), research results explain that in general empathy can be learned by children from an early age, initially empathy emerges and develops through the affection aspect where children learn empathy through facial expressions of people around them. Shapiro (Maryana & Rachmawati, 2010) explains that children will start cognitive empathy after the age of 6 years old, where children can see things from another person's point of view. This ability allows a child to know when is the right time to approach a friend who is sad and when is the right time to leave her alone. Researchers have the assumption that there are differences in the skill of empathy in children before and after environmental psychoeducation treatment. Children's empathy skills will be further improved after participating in

environmental psychoeducation activities (Stanichenko et al., 2021; Beaulieu et al., 2005).

Method

This study employs a quantitative method with a Quasi-Experimental design: One Group Pretest-Posttest Design where experiments are carried out using a single group design, while the pretest and posttest were carried out by conducting experiments on one group, without using a control group (Arikunto, 2006). The research was conducted at the Reading Park "Panggon Sinau" which means "Study Place" in Boyolali, Central Java. The number of subjects was obtained by including all the children who were students of the community reading park (a total of 34 children aged 8-12 years). The subjects were recruited through purposive sampling criteria that must be fulfilled: 1) Children from Jayan, Senting, Boyolali; 2) Age 8-12 years.

Table 1
Activity process

Session	Time	Material	Method	Resource Person
I	90 minutes	Waste hazards and countermeasures in the surrounding environment	Interactive-participatory lecture	Chief of Village Owned Business of Doplang
II	90 minutes	Plastic planting media (<i>metaplas</i>)	Interactive-demonstration lecture	Board of Muhammadiyah Hizbul Wathon
III	45 minutes	How to grow crops with polybags	Demonstration	Coordinator of Karang Taruna Karang Jaya
IV	45 minutes	Reflection	Interactive-participatory lecture	Researchers team

The measurement of empathy was carried out twice: before and after the respondent was treated with environmental psychoeducation, using the empathy scale developed by Davis (1983), which consists of the following aspects: (1) Perspective Taking: the ability to take people's point of view others and interests that are not oriented towards self-interest. In perspective-taking, there is Self-identification (touching self-awareness through the perspectives of others) and Self Positioning (positioning oneself in other people's situations and conditions to help solve their problems), (2) Fantasy: the ability to change oneself imaginatively in experiencing feelings and actions in films, books, stories or other people around them. When experiencing fantasies, a person will be tempted to convey feelings and perceptions of events that make changes in other people's attitudes and behavior (Hargrave & Sénéchal, 2000; Gathercole et al., 2006). This aspect sees how individuals can place themselves and get lost in the feelings and actions of others, (3) Emphatic concern: a feeling that is focused on attention to the misfortunes experienced by others. This aspect describes feelings of warmth such as sensitivity and concern for others, and (4) Personal distress: personal reactions

to the suffering experienced by others, including feelings of surprise, anxiety, fear, concern, and helplessness. This aspect emphasizes self-centered personal anxiety.

The scale consists of 24 items with a Cronbach's alpha reliability test value of 0.778. According to [Ghozali \(2016\)](#), a scale will be declared reliable if it has a Cronbach's alpha value close to 1.00. Based on this formula, it can be concluded that the empathy scale used in this study is reliable. The data analysis in this study was carried out using parametric statistics through the help of the SPSS for Windows version 20.0 program. The Wilcoxon analysis was used to test the difference in empathy scores between the pretest and posttest. Meanwhile, the Mann-Whitney analysis was used to test the difference between the pretest score and the posttest score.

Result

Before testing the hypothesis, the researcher conducted a normality test on the collected data. The normality test in this study used the Shapiro-Wilk test. [Ghozali \(2016\)](#), explains that the data distribution is considered normal if the p-value is > 0.05 . Based on the normality test of the pre-test data for the empathy variable, the Shapiro-Wilk fault value was 0.949 with a significance of $p = 0.111$ ($p > 0.05$). Meanwhile, the results of the normality test on the post-test data for the empathy variable obtained a Shapiro-Wilk value of 0.941 with a significance of $p = 0.068$ ($p > 0.05$). These results indicate that the distribution of pretest and posttest data is normal.

Table 2
Normality test

Class	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Result Pre Test	.142	34	.079	.949	34	.111
Post Test	.151	34	.049	.941	34	.068

The fulfillment of the normality assumption test allows analysis using the paired sample t-test. The paired sample t-test was used to test whether there was a mean difference between the empathy ability score before treatment and the empathy ability score after treatment ([Hoang, 2019](#); [Keohin & Graw, 2017](#); [Handayani et al., 2019](#)). The results of the research hypothesis test using paired sample t-test obtained a mean score of empathy ability before treatment of 70.62 and after treatment of 74.32 so that there was an increase of 3.7 with a significance value (Sig.2-tailed) of 0.035 ($p < 0.05$), and the value of $t = -2.194$.

Table 3
Paired samples test

		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PreTest - PostTest	-3.706	9.849	1.689	-7.142	-.269	-2.194	33	.035

Table 4
Paired samples statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PreTest	70.62	34	8.312	1.426
	PostTest	74.32	34	7.563	1.297

Based on the data analysis above, it can be concluded that the hypothesis is accepted. There are differences in the level of empathy of children before and after enrolling in the environmental psychoeducation process.

Discussion

The environmental psychoeducation intervention in this study was designed to increase ecological empathy for children living in the Panggon Sinau Community Reading Park. After the intervention was conveyed, it was found that environmental psychoeducation could influence children's empathy in the community reading park, Panggon Sinau. The results of the research hypothesis test using paired sample t-test obtained the mean score of empathy skill before the treatment was 70.62 and after treatment was 74.32 so that there was an increase of 3.7. These results are in accordance with research by [Zainudin & Ediati \(2017\)](#), which states that ecological or environmental psychoeducation can make children understand what is around them and be able to realize the position of each creature in their environment. The emergence of children's awareness about this will be able to increase their ability to empathize with others and the environment. The results of research by [Syafri & Yaumas \(2017\)](#), also describe six ways to develop children's empathy, i.e. by teaching children about attentiveness, tolerance, modesty, support, encouragement, and flexible attitude in facing differences. The results of the research by [Musitu-Ferrer et al. \(2019\)](#), added that female students have a higher level of emotional empathy towards the environment and connectedness with nature, on the contrary, male students tend to have a lower level of emotional empathy towards their environment.

The psychoeducation of environmental literacy in this study was carried out through the concept of learning by playing with the lecture method, the use of images, videos, and direct practice in a field. [Şahin \(2012\)](#), in his research also

explained that various interactions and lectures carried out in the educational process will help children identify their emotional experiences so that children will continue to actively think about and be involved in the given educational process. The high empathy skills of children will also improve their moral reasoning about the environment. Children will use awareness of their feelings of empathy to appreciate the welfare of humans, animals, and plants around them (Berenguer, 2010). Besides, the results of Widiatmoko's (2017), research explain that there is a positive influence between the level of empathy of children with prosocial behavior. Children with a high level of empathy will have a high level of prosocial as well. This means that children who have empathy in themselves will show helpful behavior. The results of research by Silfiasari (2017), also explain that there is a positive relationship between empathy and forgiveness in terms of friendship. Children with a high level of empathy will easily forgive mistakes made by their friends (Payne et al., 1994; McCulloch & Joshi, 2001).

Conclusion

Based on the results of the research above, it can be concluded that: 1) there is a significant positive effect of environmental psychoeducation on children's empathy skills, and 2) The environment psychoeducation was effective to increase children's ability who play and learn at Taman Baca Masyarakat Panggon Sinau. This can be seen from the increase in the mean score on the empathy scale after participating in the psychoeducation process.

Recommendation

Based on the discussion above, the researchers recommend the following suggestions: 1) for further research, it is necessary to have a control group as a comparison for the experimental group, 2) for the managers of the Panggon Sinau Community Reading Park, it is expected that they will be able to conceptualize a systematic learning method with the learning by playing method so that children always carry out the learning based on their experiences, 3) for the subjects, it is expected that they can participate in the reading park activities optimally and maintain their empathy skill by always doing playing activities or group-based learning.

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