

The Contribution of Outdoor Education Activities to Enhance Indonesian Bullying Victims' Resilience

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Abstract

This study is objectively intended to recognize the contribution of outdoor education activities on the students' resilience. Appropriate interventions are needed to enhance the resilience of elementary school students in the effort to overcome bullying. This study employed an experimental method with a one-group pretest-posttest design. The study's participants consisted of 278 students (187 males of an average age of ± 11.4 years, 91 females of an average age of ± 11.6 years) from four schools at Cimahi. This study is an experimental research with one-group pretest-posttest design. Interventions were administered in 2-hour meetings over a 14-week period. The outdoor education activities implemented as interventions included hiking, climbing, orienteering, outdoor game, and camping. The research instrument employed was the Resilience Scale. The Paired Sample Test showed the significance level $0,000 < 0,05$, it means that there was a significant improvement in the elementary school students' resilience gained through the outdoor education activities. By this improvement, it is expected that outdoor education activities can equip the students psychologically to overcome any kind of bullying demeanor. In conclusion, the outdoor education activities could enhance the bullying victims' resilience as the result showed that the implementation of outdoor education activities significantly effects on the students' resilience.

Keyword: *resilience, outdoor education, bullying*

Background

Bullying is a pervasive social issue among children across the globe. Of U.S. students reporting being bullied, the percentage of those reporting bullying that took place "nearly on a daily basis" fell from 6.6% in 2007 to 4.2% in 2015. In addition, the percentage of students reporting to teachers or other grown-ups at school on bullying rose from 36.1% in 2007 to 43.1% in 2015 (U.S. Department of Education, 2018). A 2015 report discloses that 40% of Indonesian children experienced bullying at school, 32% were involved in physical violence, and 72% fell prey to violence against children (UNICEF, 2015). Meanwhile, it has been reported that as of May 30, 2018 22.4% of cases occurring in the educational sector were related to victims of violence and bullying (Komisi Perlindungan Anak Indonesia, 2018).

Elementary school students who have experienced or have caused bullying emotionally suffer from behavioral problems in the present or in the future. They tend to have low academic performance, get expelled from the school, and be less active in social activities outside the school (Hernández de Frutos & Del Olmo Vicén, 2014)(Hernández de Frutos & Del Olmo Vicén, 2014, p. 585). Extreme bullying may even cause such psychological disorders as excessive anxiety, fear, depression, suicidal thoughts, and post-traumatic stress disorder (Tumon, 2014).

In living their lives students are faced with challenges, either bullying- or violence-related. Students with low levels of resilience are more likely to be victimized (Beightol, Jeverson, Carter, Gray, & Gass, 2012). Resilience-based approaches to bullying offer a little alternative to the conventional ones. This alternative requires further investigation to generate anti-bullying strategies (Brian & Stuart, 2016). The right intervention design and support are keys to help bullies and their victims.

Outdoor activities have the potential for resilience enhancement. Aspects of outdoor activities are brought together to build resilience in a shorter period of time and in a more effective way. It is suggested by this work that: (a) resilience may be an interesting variable in the context of adventure education; (b) experiences gained through adventure education may be effective for resilience enhancement; and (c) specific components pertaining to management of adventure education may be strong and meaningful enough to facilitate resilience enhancement (Alan & Aiko, 2016). Further research should take into account a wider range of factors that may influence abilities, including biological mechanism, to assist in more holistic development of interventions given to teens who have experienced bullying to bounce back from the negative effects of victimization (Sapouna & Wolke, 2013). It is also recommended to investigate further the dynamics and make a betterment to the existing experiences to those interested (Rivka, 2016). Resilience-based interventions should be developed by taking advantage of these studies and should be intended to gain higher levels of resilience as are found in younger students (Brian & Stuart, 2016).

Optimal learning environment will be beneficial for character, academic, and emotional intelligence development. In a better school climate, bullying behavior tends to be lower in scale (Hoffman, L.L., Hutchinson, C.J., Reiss, 2009). Resilience can be enhanced by interventions in the form of outdoor education. It is necessary to develop an intervention and prevention program to help not only victims of bullying but also the ones causing it (Maliki, Asagwara, & Ibu, 2009). In the future we probably will realize that social support in the face of challenges is an effective mechanism for developing psychological resilience (Neill & Dias,

2001). Students with higher resilience profile are less likely to be engaged in aggressive or bullying behavior than those with lower resilience profile (Donnon, 2010). In a similar fashion, those who spend more time being engaged in outdoor activities have higher levels of psychological resilience than those who spend more time on the Internet or social media (Cerkez, 2017). Therefore, it is deemed necessary to conduct a study of the contribution of outdoor education activities to enhance bullying victims' resilience.

Method

This study was based on the notion that one's resilience to various life challenges may be influenced by the events they experience when learning and receiving education at school. To gain understanding on the effect of outdoor education on the level of resilience, an investigation using an experimental method with a one-group pretest-posttest design was performed (Fraenkel, Wallen, & Hyun, 2012). An experiment was conducted through outdoor education activities in the form of hiking, climbing, orienteering, outdoor game, and camping. Interventions were administered for 2 hours per session in a 14-week period as detailed below.

Table 1. Outdoor Education Activities

No	Activity	Description
1	Leaf hunt	An activity of searching for items determined by the teacher (e.g., finding red, purple, and yellow leaves).
2	Bugs search	An activity of searching for bugs. Students will have to make a record of the bugs they find and where they find them.
3	Tree climbing	An activity of climbing tree. Students will observe such objects like leaves, twigs, and critters living on a tree.
4	Water plant hunt	An activity of searching for plants in a rice field. Students will observe and study aquatic plants. They will have to make a record of the plants they find and where they find them.
5	Toward the peak	An activity of summiting a hill. Up there, students will draw a landscape.
6	Rice field tour	An activity of touring a rice field.
7	Wall climbing	Students will go wall climbing.
8	Drawing a school map	Students will draw a school map. Before drawing, they will have a tour around the school to see a variety of

No	Activity	Description
		objects existing at the school and how they are arranged (e.g., the positioning of trash cans, toilets, parking lot, etc.).
9	Cooking	Students will cook with ingredients they find around them. They will search for ingredients at a rice field, on a hill, or near a wood. They will also learn to light the fire.
10	River tubing	The activity is performed by riding an inner tube.
11	Rock climbing	Students will go rock climbing.
12	Slacklining	The activity is performed by walking along a suspended line tensioned between two trees wearing safety gear.
13	Camping	Students will set a tent with their group mates.
14	Camping	Students will perform camping activities. They will search for ingredients, light the fire, and cook.

Previous research asserts that, while an increase in resilience was clearly observed within the 10-week program, children who were the most traumatized or abandoned, as reported by the organizer, definitely took longer to overcome their problems (McArdle, Harrison, & Harrisonb, 2013). This study added four sessions in the hope that the resilience of the students be improved. A research sample of 278 students (187 males of an average age of ± 11.4 years and 91 females of an average age of ± 11.6 years) was taken by the cluster random sampling technique from four elementary schools. The research instrument employed was the Resilience Scale (Wagnild & Young, 1993). The instrument consists of 25 question items and has a reliability value of 0.81. All of the participants received permission from their parents to take part in this research and complete the instrument.

Results

The results of this research indicate that there was an improvement in the resilience of the outdoor education program participants. The data are presented in the following table.

Table 2. Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Pretest - Posttest	-5.20144	5.08296	.30486	-5.80157	-4.60131	-17.062	277	.000

The significance level of 0.000 ($p < 0.05$) obtained from the test suggests that there was a significant improvement in the elementary school students' resilience gained through the outdoor education activities.

Discussion

The improvement in the resilience of the elementary school students was gained through the processes they were going through and the outdoor education activities they were engaged in. The outdoors serves as a place in which the benefits of physical activities and social interactions intersect the positive effects from the nature (Wilson, Christensen, Wilson, & Christensen, 2017). (McArdle et al., 2013) A sample of elementary school students was enrolled in the investigation of resilience change immediately after the program and four months after the program. The results show a significant change immediately after the program and four months later as compared with the level of resilience before the program. This indicates that resilience can be improved through outdoor education. Besides, some findings show that outdoor education and wilderness programs can foster the mental health of adolescents and young adults (Mutz & Müller, 2016).

The documented benefits of recreation, particularly in the outdoors, are many, ranging from physiological benefits (e.g., improved cardiovascular fitness) through benefits for mental health (e.g., decreased stress and depression symptoms, improved subjective well-being, and improved peer support socially) (Amy & Eddie, 2017). Outdoor education activity participation is driven by motives such as goal achievement, risk-taking, pushing personal boundaries, overcoming fears, bodily sensation, and deeper desire to connect with others and the nature (Kerr & Houge Mackenzie, 2012).

Outdoor education can improve characteristics of interest in the psychological aspect through the interventions administered (Sheard & Golby, 2016). Outdoor education is built upon an extensive foundation of multidisciplinary theories and practices to develop and extend its knowledge basis, create meaningful growth potential, and foster knowledge and skills in

outdoor activity, personal development, and environmental preservation (Potter & Dymont, 2016). The growth in the aspect of personal development takes a reinforcement form in various psychological aspects, one of which is resilience. It is suggested that future researchers should employ qualitative methods so that the extent to which resilience is retained in children after intervention can be identified.

This study is limited to the unavailability of the control group. Thus, the further studies are expected to employ a control group, so that, the result of the intervened group can be compared. Furthermore, the study on the resilience is also suggested to be investigated qualitatively, so the elaboration of the obtained data can be deeper than just number.

Conclusion

The interventions administered through outdoor education activities yielded a significant improvement on the resilience of the bullying victims.

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