Traditional Borneo Game in Improving Student Character : Changes in Social Behavior

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Article Info

Abstract

The purpose of this research is to reveal the result of an experiment of a traditional game native to Kalimantan in improving students' character: changes in social behavior. The method used is the experimental method: participants, 60 junior high school students aged 12 to 13 years. The research instrument used a questionnaire regarding students' social behavior. The data processing and analysis technique used the t-test analysis technique. From the test results, it is obtained that t count = 7.82 and p = 0.001. The test results showed significant differences in social behavior between the experimental and control groups. The conclusion from the results of this study is that the traditional game of Borneo Asen Naga (AN) has a significant influence on the formation of students' social behavior. The development of social behavior that is most visible from the treatment results in this traditional game is the aspect of cooperation. Meanwhile, the male sample group showed better motor development than the female group motor behavior.

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INTRODUCTION

The main goal of Physical Education (PE) in Indonesia is to form qualified human beings, both cognitively, psychomotor, and effectively. The scope of the material is games and sports that are carried out at all levels of education. The benefits obtained from PE are delivered so that children and adolescents can play an active role physically (Azlan et al., 2021; Da Silva Oliveira et al., 2019), develop a healthy lifestyle and lifelong well-being (Da Silva et al., 2019; Smith et al., 2021), and improve cognitive function, mental health, and fitness (Corbin, 2021). In PE, traditional sports games have a vital role in continuing education (Luchoro-Parrilla et al., 2021). Classic games performed by children usually follow the area's culture that reflects a harmonious relationship with nature and its environment (Lewier et al., 2020) inherited from the previous generation and transferred to the next generation with philosophical and cultural values attached8. They can create themselves in a game, generating creativity and skills to support them into solid and optimistic characters.

In Indonesia, many traditional game sources come from the local cultural environment. One of them is the traditional game Asen Naga (AN), a traditional game native to Borneo. The characteristics of the game are done in groups and facing each other. Character values that can be obtained from AN include Children can learn how to get along with others, work together, playing the role of leaders and followers, and realistically assessing themselves and their abilities by comparing themselves to the skills of their peers. Psychological aspects in traditional play affect the development of cognitive elements of children (Damanik & Sinaga, 2021). In addition, affective aspects also develop through children's interactions and social experiences that are fun and motivating (Kinder et al., 2020).

Despite the benefits of traditional games impacting mood (Cifo Izquierdo et al., 2021), fun and enjoyment (Azlan et al., 2021) have been proven. However, AN is not yet famous for children in school, and its acceptance is still unclear. There are many reasons why traditional games are starting to be abandoned by children and teenagers, one of which is the emergence of online gaming. Children and adolescents prefer to play with gadgets inside the house rather than outside the house1. The results of a study in the Philippines reported that 43.33% of children felt unsafe playing physically outside the home on security grounds; they were safer playing computer games at home (Booc et al., 2019). So, it is in Indonesia. Children and teens are turning to online gaming, abandoning the traditional game. Before this study, interviews with several students mentioned that conventional games are boring, outdated, and do not fit modern times. Mobile game designs are more straightforward to learn, while traditional games take a long time and cost a lot of money (Cai et al., 2021). The same is stated by (Bansal et al., 2005) that the child transfer to mobile games is caused by several perceptions such as; satisfaction, quality, value, trust, commitment, and price perception.Therefore, this study will promote physical activity of traditional games A through socialization and training in extracurricular activities in the school. This study will report the effects of regular, feelings of inclusion, and student involvement in physical activity; how they manage physical skills and tasks in traditional games. Social skills and adjustment skills become increasingly crucial to know when children have reached adolescence. A teenager's failure to master social skills will make it difficult for him to adjust to the surrounding environment so that it can cause a sense of inferiority, ostracization from the association, tend to behave less normatively (social, or

antisocial), and even in more extreme development can lead to mental disorders, juvenile delinquency, criminal acts, acts of violence, etc. Evidence suggests that participation in PE affects the development of adolescents' personal and social skills (Bessa et al., 2020; Opstoel et al., 2020). Thus, the goals to be achieved in this study become essential to know the influence of AN data improving character, i.e., changes students' social behavior in a positive direction and better than before. They were tested at the time of PE learning in school.

METHODS

The type of research used in this research is an experimental method using a pretest-posttest control group design (Sugiyono, 2013). In this study the sample was divided into two groups, namely the experimental group and the control group. The two sample groups were initially tested using a questionnaire about social behavior to determine the condition of their social behavior before being given treatment. After the initial data on the sample's social behavior was collected, the experimental group was given treatment through learning in the form of the traditional AN game for four meetings. After the last meeting, the two sample groups were tested using a questionnaire about social behavior. This is done to determine the effect of traditional games on changes in social behavior of the sample. The control group serves as a comparison of the existence of a treatment against the experimental group.

Participants

The sample in this study was a junior high school student in Samarinda-East Kalimantan. Characteristics of the model; male and female, aged between 12 to 13 years, student family background; employees, traders, businesspeople, and hobby students; Play football, basketball,

volleyball, martial arts, and dance. The number of samples was taken from 12.5% of the total student population of 480 people, so in this study, the model was determined to amount to 60 students consisting of 30 men and 30 women.
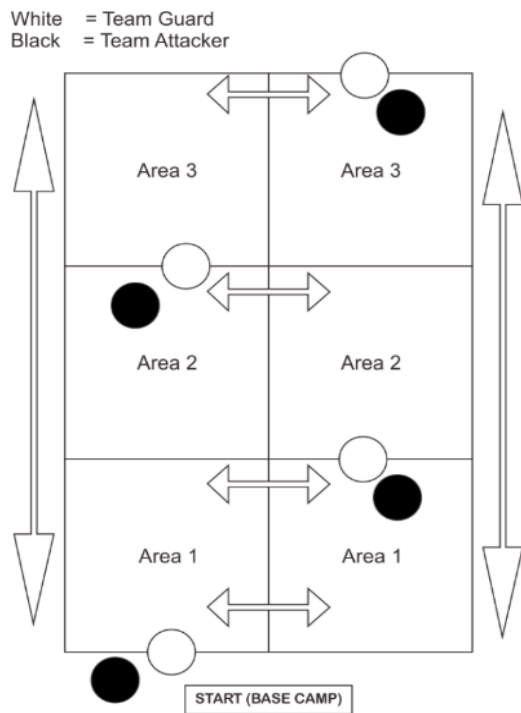
Sampling Procedures

The population in this study were 480 students of class VII and VIII of SMP Negeri 2 Samarinda. While the sample for this study was determined by the author as many as 60 people divided into 30 people for the experimental group and 30 people for the control group, so this research is a sample research. Sampling was done through simple random sampling through a lottery (Sugiyono, 2013).

Materials and Apparatus

It takes a rectangular piece of land with a court length of 15 meters and 9 meters to play AN. Then the area is divided into six plots with a size of 4.5 meters x 5 meters each. The game line is marked with a 5 cm wide bar, and efforts are made so that the line does not fade or disappear quickly. Group members who take turns guarding the field are divided into group members who protect the horizontal and vertical boundaries. Group members tasked with keeping the boundary line horizontal will try to block their opponent, who is also trying to cross the boundary line that has been determined as the free boundary line. For group members tasked with guarding the vertical boundary line (generally only one person), this person has access to the entire vertical boundary line in the middle of the field. AN is usually done within 2 x 15 minutes. The winner in this game is determined from the score obtained by one of the teams after the game ends. The score is taken from each player who made it across the front line to the backline was given a value of one, and the player who also made it across the

backline to the front line was given one point.

White = Team Guard
Black = Team Attacker

Area 3   Area 3

Area 2   Area 2

Area 1   Area 1

START (BASE CAMP)

Figure 1. Traditional Game Asen Naga (AN) playing field

Procedures

The sample was divided into two groups in this study: the experimental and control groups. Both groups of these samples in the initial test used questionnaires about social behavior to know the initial condition of social behavior before being given treatment. After the initial data on the social behavior of the sample was collected, the experimental group was then assigned treatment through the traditional games AN for three meetings. After the last meeting, both sample groups used questionnaires about social behavior in the final test. This was done to determine the effect of traditional games AN on changes in the sample's social behavior. The control group serves as a comparison of the treatment of the experimental group.

Design or Data Analysis

Instruments in this study use closed questionnaires consisting of components or variables spelled out through sub-components, indicators, and questions. The details of the question or statement describe the student's social behavior.

Table 2. The grille on social behavior

Variable	Sub Variables	Indicators
	Collaborate	Help each other, give, improve, cover weaknesses, and trust.
	Respect	Be polite to the older, appreciate the abilities of others, not denigrate others, tolerance, and tolerance.
	Greet	Greetings, handshakes, giving smiles, nodding their heads, and waving hands
	Honest	What it is, state the truth, don't lie, don't swear, and don't pretend.
	Hostility	Demeaning each other, making fun of each other, opening to each other, power struggles, and power struggles
	Competition	Gain support, be the best known (famous), attention of the opposite sex, and academic achievement.
	Fight	Between students, between schools, between sports teams, between schools, and between regions
	Conflict	Opinions, desires, judgments, religious beliefs, and rights

The indicators formulated into the grid above are then used as material for preparing questions or question items in the questionnaire. Regarding alternative answers in questionnaires, the authors used the Likert scale with alternative explanations strongly agreeing, agreeing, hesitation, disagreeing, and strongly disagreeing with the alternative score of the positive answer 1-5 and the alternative score of the negative response 5-1. There are 38 valid internal question items, having internal consistency of 1.72 and reliability of 0.72.

Statistical analysis

Statistical analysis is taken by procedure; Calculated the average score of the sample group, calculated the standard deviation, tested the normality of the data using the Lilliefors normality test, tried

homogeneity using the F test, tested the significance of improving learning outcomes using the t-test.

RESULT

Before being given AN treatment, the findings of student social behavior were dominant in the sub-variable cooperation of 69.47% and hostility of 69.47%. In this case, the two sub-variables reflect the existence of two opposite poles, namely positive and negative behavior in students, and both give each other equally strong influences. While the results of findings of student social behavior after being given AN dominantly on the sub variable competition 74.53%. In this case, the competition in question can be positive such as competing for learning achievement as high as possible, and negative, namely competing to do things that do not benefit themselves or others. Can be seen in table 1.

Table 2. Data on preliminary test results and final tests of student social behavior variables

No	Sub Variables	Early Tests				Final Test			
		Number of questions	Actual Score	Ideal Score	%	Number of questions	Actual Score	Ideal Score	%
1	Collaborate	5	521	750	**69,47**	5	555	750	74,00
2	Respect	5	508	750	67,73	5	531	750	70,80
3	Greet	5	504	750	67,20	5	558	750	74,40
4	Honest	5	512	750	68,27	5	543	750	72,40
5	Hostility	5	521	750	**69,47**	5	552	750	73,60
6	Competition	5	509	750	67,87	5	559	750	**74,53**
7	Fight	3	277	450	61,56	3	328	450	72,89
8	Conflict	5	498	750	66,40	5	529	750	70,53
	Sum	38	3850	5700	67,54	38	4155	4155	5700

Furthermore, processing and analyzing data statistically to prove changes in students' social behavior after being given AN treatment is a condition of scientific analysis. The results of calculations and analysis data can be seen in Table 2.

Table 3. The results of the calculation of the average and standard deviation of initial test scores and final tests of social behavior of experimental group students and control groups based on sub-variables

Group	Test results	M/SD	Cb	Rs	Gr	Hn	Hs	Cp	Fg	Cf
Experiment	Early tests	M	104	102	101	102	104	102	55	100
		SD	10.96	8.11	4.92	15.18	12.46	7.76	0.58	10.57
	Final test	M	111	106	112	109	110	112	66	106
		SD	4.06	4.21	4.16	5.77	1.67	6.02	10.50	7.46
Control	Early tests	M	97	106	98	103	97	106	59	105
		SD	12.15	3.42	9.28	6.83	2.00	7.54	15.31	8.69
	Final test	M	102	108	106	105	99	106	60	107
		SD	10.20	2.28	4.66	5.40	7.33	6.66	18.61	6.00

Note: Cb = Collaborate, Rs = Respect, Gr = Greet, Hn = Honest, Hs = Hostility, Cp = Competition, Fg = Fight, Cf = Conflict.

Table 3 shows the results of the calculation of average and standard deviation of initial test scores and final tests of social behavior of experimental group students based on sub-variables of cooperation, mutual respect, greeting, honesty, hostility, competition, fights, and infighting. After the normality test and the data homogeneity test, they then tested the significance of changes in the social behavior of both sample groups. The results of the statistical analysis can be seen in Table 4.

Table 4. Results of the calculation of the significance test of changes in the social behavior of students of both groups

Group	t-count	Significance α = 0,05	Description
Experiment	4.25	.000	Significant
Control	1.51	.137	Insignificant

The calculation and significance test for changes in the social behavior of the two sample groups was carried out using the significance test of the average similarity of the two-party test, namely the t-test. The test results obtained, experimental group t count = 4.25 and p = 0.000. The test results show that AN can improve students' character in changing social behavior. Meanwhile, from the second test results, the control group t count = 1.51 and p = 0.137. The test results showed that the control group did not significantly change students' social behavior. The next step was to test the

difference in the influence of traditional games on social behavior in both sample groups using the average two-party test. The test results can be seen in table 5.

Table 4. Results of calculation and test of significance of differences in the social behavior of students of both groups

Group	M	SD	t-test	Significance $\alpha = 0,05$	Description
Experiment	10.17	3.51	7.82	0.001	Significant
Control	3.83	2.70			

The calculation and significance test of differences in the social behavior of students of both sample groups was conducted using the one-party average significance test, i.e., the t-test. From the results of the trial, it was obtained that t count = 7. 82 and p = 0.001. The test results showed significant differences in social behavior between the experimental and control groups. In this case, AN can improve students' character, i.e., changes in social behavior.

DISCUSSION

The finding in this study is that AN can significantly improve students' character in social behavior. This provides clarity and evidence that existing theories result from analyzing empirical data through field proof. According to (Parlebas, 2020) traditional games, it is a collective representation of an area based on its structure and historical value. AN piloted in this study is a simple game in design and implementation but can promote physical activity comparable to organized sports. It emphasizes the development of children through motion and game activities, which include the development of movement skills, physical abilities, and social skills. According to (García-Monge et al., 2021) traditional games, it is considered an agent of enculturation. A process that studies the

value system contained in conventional games. The characteristics of this game are cooperation, fair play, discipline, mutual respect, and competition. In this regard (Opstoel et al., 2020) refer to it as prosocial activity: respect, empathy, and sympathy.

Many events occurred during this study. Some of these events illustrate social interactions between members and opposing groups. The behavior that arises during the game in the early stages of the encounter explains that the game can depict individual characters without role manipulation. It is still clear that each student's individualistic attitude, seeking influence and support, blaming others, wanting to perform better than others, always wanting to win, and various other behaviors appear unnoticed by the students themselves. These behaviors are (Øygardslia, 2018) because the student playing will be attached to a character he created himself. They are engrossed in playing, temporarily adopting one of the characters in the game and putting aside their natural identity. Similarly, it is stated by (Huizenga et al., 2019). At subsequent meetings began to see changes in students' social behavior, namely the beginning of reduced individual dominance, sincere cooperation, mutual trust, discipline in carrying out tasks and responsibilities, willingness to accept defeat reasonably, recognizing the abilities of others, healthy competition, and racing to achieve the best results in good ways. According to (Rothwell et al., 2020), the power of such functional relationships is shaped by behavior, values, and daily habits (socio-cultural practices). At this stage, according to (Sari et al., 2021), students can indirectly enjoy playing and understand how they should behave in the activities they do. About life skills that focus on examples of positive behavior and accountability (Marttinen et al., 2020). This clarifies that AN can gradually change the positive direction of student behavior. The will and

awareness arising from this deliberately invented game provide a deep understanding of the importance of socio-pedagogical approaches in forming students' character and social behavior through play. About socio-pedagogical approaches (Logvinova, 2016) suggests implementing community-based educational processes through interaction with social institutions, the involvement of children in socially significant activities and social relationships, and social inclusion. In response from teachers and principals from this research, AN will be used as an extracurricular program and cooperate with the Ministry of Education and Culture to further introduce some traditional games in Kalimantan as an alternative to PE learning. In addition, there will be a competition between classes at the end of the semester. The response of both teachers and principals will undoubtedly have a good impact on the social development of students. Extracurricular activities can help students avoid violent or risky behaviors and learn about positive things for future careers (Ahmad et al., 2019). Applying traditional game learning concepts in PE forms simulated student social behavior in the school environment. A child in school is expected to develop various personal and social skills such as Peer relationship skills, prosocial behavior (e.g., respect), leadership skills, problem-solving skills, and personal and social responsibility skills (Opstoel et al., 2020). The same is stated by (Alcaraz-Muñoz et al., 2020) that the key spec in the game is to look for students' motor, social, cognitive, and emotional development. In this case, the process of physical learning can be developed in the form of traditional games, so that at that time there is the application of social aspects that generally describe cooperation among students, learn to judge others realistically, and learn to play a role both as leaders and as leaders. According to (Homan et al., 2020) the

demands of the situation in team diversity, leaders must prioritize one or more behaviors (mastering both).

Another interesting finding in this study is that AN prioritizes aspects of cooperation. Each team member can work together to cover each other's weaknesses. Examples that appear at play are when members have to do something related to physical exploitation, such as running to chase, dominantly done by men. Still, they need to do strategies related to tactics used in the game, predominantly done by women. This means that AN can be played by both women and men even if it is done together; there is continuity in the goal to win the game. It is an outstanding character education of cooperation regardless of gender; as long as there is still one vision and mission, the goal will be achieved without conflict or significant problems. According to (Naylor & Yeager, 2013) collaborations with teammates, the challenges of the competition have great educational potential. Other findings, at the end of the meeting, there are still some students who want to do it again, and there are also those who want to play with different types of traditional games. This shows that social values are ultimately formed through interaction and socialization between students. According to (Al-Mashhadi, 2019) personalities, individuals are influenced by the social environment and social interactions associated with them and the human need for others to promote their survival. This clarifies that AN contribution is acceptable to students, so it is necessary to rethink the teaching process in PE classes, emphasizing the progression from traditional PE lessons towards a more constructivist approach. His contribution is significant to the extraordinary change of character; students are familiar with social values such as obeying applicable rules or norms, cooperation, respect for others, discipline, responsibility, sportsmanship,

and can put themselves in various social situations to the best of their ability.

CONCLUSION

As a traditional game based on Borneo's local culture, AN can enhance students' character and significantly change social behavior. Social values such as adhering to applicable rules or norms, cooperation, respect for others, discipline, responsibility, sportsmanship, and placing oneself in various social situations can develop. These social values are formed through interaction and socialization between students. As a recommendation: as a local culture Borneo AN can be used as alternative teaching in teaching and learning activities PE in schools and can be an alternative to the development of extracurricular programs and be completed at the end of the semester.

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