



## Utilization of Jenggala Natural Attractions As An Outdoor Learning Activity Infrastructure

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### Abstract

*Outdoor education is an activity that increases children's learning capacity by learning from the surrounding environment. It is necessary to pay attention to the infrastructure that supports the achievement of learning outside the classroom. This research aims to analyze the Jenggala natural attraction as an infrastructure for outdoor learning activities. This research utilizes quantitative and descriptive methods. The research was conducted at the Jenggala natural attraction, with a sample of 32 physical education teachers in the Baturaden sub-district. This research uses a questionnaire instrument with a reliability value 0.919 as a data collection tool. Data analysis uses quantitative description operating SPSS software. The research results show that the Jenggala natural attractions complete the basis for structuring infrastructure for outdoor activities. Security indicators obtained an average of 82.5% (excellent). The specification indicator for the outdoor learning environment obtained an average of 80.5% (excellent). The standard size indicator obtained an average of 80.7% (excellent). The appropriate land contour indicator obtained an average of 75.8% (good). Based on the results of research data analysis, Jenggala natural attractions deserve infrastructure for outdoor activities due to the accomplishment of safety indicators, specifications for the outdoor learning environment, standard sizes, and suitable land contours.*

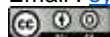
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### INTRODUCTION

Outdoor learning is an attempt to improve children's learning capacity through learning outside of the school environment. Outdoor education is an activity that contains activities outside the classroom or school and in the living world. Outdoor learning activities are more beneficial than indoor learning activities (Anggraini, 2021; Husamah, 2013; Yani, 2021). Classroom education activities can be accomplished by developing physical education subject teachers (Rosyid & Yumnah, 2019; Taqwan, 2019). Outdoor education

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approaches and learning processes that use nature as infrastructure and media are considered effective in knowledge management. Outdoor education includes several activities, such as sightseeing, getting to know the environment, research and mountain climbing, surfing, and camping (Hartadji, 2018).

It is necessary to consider the recommendations for supporting these activities to achieve outdoor learning (Abdulhaji, 2016; Nur et al., 2018). Outdoor learning activities should consider the management carried out at tourist attractions as an arrangement of developing infrastructure for activities outside the classroom. Tourism is a travel activity carried out by a person or group of people who visit a certain place for recreation, personal development, or learning about the uniqueness of the tourist attractions visited (Law Number 10 of 2009). Therefore, a tourist attraction can be interpreted as a place for the destination of a visit in carrying out recreation, personal development, or learning the uniqueness of a tourist attraction.

Tourism infrastructure is the main facility that attracts and provides services to visiting tourists (Suryono et al., 2017; Zahara, 2022). In comparison, companies provide tourism facilities to provide services to tourists because the back and forth of tourism facilities depends on the number of tourist visits. Infrastructure and facilities are the most vital supports, so tourist attractions are in great demand by tourists (Humagi et al., 2021).

Tourism objects as learning infrastructure for outdoor activities are easily found in every district or city in Indonesia, including Ketenger Village, Baturaden District, Banyumas Regency. The area has a natural tourist attraction, Jenggala Waterfall, inaugurated in 2017. Jenggala Nature Tourism partners with Ketenger Village-owned Enterprises (BUMDes) and collaborates with Baturaden forestry. Infrastructure for outdoor activities includes outbound, camp area, and camping garden. The road to Jenggala Nature Tourism is impressive because we have to go about 2 km from the parking lot when heading to the tourist attractions. We are also offered beautiful scenery before reaching the destination.

Researchers have conducted interviews to obtain preliminary data. The interview was conducted with Jenggala natural attraction manager. Many visitors obtained initial information; interviews were conducted with elementary school, junior high, and high school teachers in Baturaden District. Several teachers are already employing Jenggala Natural Attraction and carrying out outdoor learning activities. This research aims to

analyze the feasibility of Jenggala Natural Attraction for outdoor learning activities by paying attention to supporting and inhibiting factors.

## METHOD

This research is a quantitative descriptive research. Descriptive research investigates a situation, circumstances, or additional factors, and the results are presented as a research report (Arikunto, 2013; Ismawati et al., 2020). This study utilized a survey method. According to Sugiyono (2017), the survey method is applied to acquire natural data from a certain location, and researchers collect data through questionnaires, tests, or structured interviews. This research has received approval from the Health Research Ethics Commission (KEPK) Faculty of Health Sciences, Jenderal Soedirman University with Number 1330/EC/KEPK/XII/2023.

The research sample consisted of 32 Physical Education teachers in the Baturaden sub-district. The Research Instrument uses a questionnaire on the Utilization of Tourism Objects as Infrastructure for outdoor learning Activities, with a Reliability value of 0.919. The data obtained is processed to determine the level of utilization of Jeggala Natural Attraction as a means of education for outdoor learning activities with the following formula:

$$P = \frac{f}{N} \times 100\%$$

## RESULT

### 1. Safety Indicators

Research data was collected by surveying Physical Education teachers in the Baturaden area. The reason for selecting these teachers was because, geographically, Jenggala was located within their area. Apart from that, they have carried out outdoor learning activities at this location previously. The results of respondents' answers regarding location safety factors are presented in Table 1 below.

**Table 1. Results of the Security Indicator Questionnaire Analysis**

| Question   | Total score | Score Max | P=F/N x 100%  | Index % | Category  |
|--|-------------|-----------|---------------|---------|-----------|
| Jenggala Natural Attraction location is safe                                       | 103         | 128       | 103/128x100%  | 80,4%   | Excellent |
| Clear boundaries of playground boundaries  | 97          | 128       | 97/128x100%   | 75,7%   | Good      |
| Not yet complete first aid equipment   | 106         | 128       | 106/128x100%  | 82,8%   | Excellent |
| All dangerous equipment is well protected.   | 103         | 128       | 103/128x100%  | 80,4%   | Excellent |
| It still needs to be sufficiently operated to carry out the camp.                  | 103         | 128       | 103/128x100%  | 80,4%   | Excellent |
| Rarely found dangerous objects, such as sharp rocks, in the Jenggala area.         | 107         | 128       | 107/128x100%  | 83,5%   | Excellent |
| Access to the Jenggala area could be more convenient for motorists or pedestrians. | 104         | 128       | 104/128x100%  | 81,2%   | Excellent |
| Access to the hospital or Community Health Center from Jenggala is not too far     | 102         | 128       | 102/128x100%  | 79,6%   | Good      |
| There are no specific security guards on duty                                      | 95          | 128       | 95/128x100%   | 74,2%   | Good      |
| Sum  | 920         | 1152      | 920/1152x100% | 80%     | Excellent |

Based on the data presented above, the safety aspect of Jenggala has a percentage with an Excellent category of 6 indicators and a percentage with a Good category of 3 indicators. The overall average safety indicator result is 80% (Excellent Category). Based on the value, it can be concluded that Jenggala fulfills the safety indicators aspect.

## 2. Specific Outdoor Learning Environment Indicators

Specific environment indicators is Jenggala's readiness as a location for implementing outdoor learning activities in terms of environmental conditions. Environmental conditions include ground surface, cleanliness, safety from dangerous animals, and availability of facilities and infrastructure to support learning activities. The results of the study of environmental factors from Jenggala can be seen in Table 2 below.

**Table 2. Results of Specific Outdoor Learning Environment Indicators**

**Questionnaire Analysis**

| Question  | Total score | Score Max | P=F/N x 100%  | Index % | Category  |
|---|-------------|-----------|---------------|---------|-----------|
| It has adequate open space.   | 102         | 128       | 102/128x100%  | 79,6%   | Good      |
| The activity area is still incomplete in supporting outdoor learning  | 104         | 128       | 104/128x100%  | 81,2%   | Excellent |
| There is no safety barrier, so it is dangerous to carry out outbound.   | 105         | 128       | 105/128x100%  | 82%     | Excellent |
| The ground surface in Jenggala is safe for implementing outdoor learning activities.                            | 105         | 128       | 105/128x100%  | 82%     | Excellent |
| The environment is less clean and interferes with comfort when carrying out outdoor activities in the classroom | 97          | 128       | 97/128x100%   | 75,7%   | Good      |
| Teachers easily supervise students when carrying out outdoor learning activities                                | 103         | 128       | 103/128x100%  | 80,4%   | Excellent |
| It has many gigantic trees and is dangerous when carrying out outdoor learning activities                       | 106         | 128       | 106/128x100%  | 82,8%   | Excellent |
| Facilities and infrastructure in Jenggala are complete  | 103         | 128       | 103/128x100%  | 80,4%   | Excellent |
| Sum   | 825         | 1024      | 825/1024x100% | 80,5%   | Excellent |

The data presented in Table 2 shows that the environmental conditions in Jenggala are in the Excellent category. The survey results show that 6 indicators received an excellent score, and 2 received a good score. The average environmental specification feasibility score is 80.5% or Excellent category.

3. Standard Area Indicator

Standard area indicators are used to assess the suitability of Jenggala as a location for implementing outdoor learning activities. Area services include assessments of activity areas, parking areas, camping areas, and shelters from disaster hazards. The results of the study of the standard areas in Jenggala are presented in Table 3 below.

**Table 3. Results of the Standard Area Indicator Questionnaire Analysis**

| Question  | Total score | Score Max | P=F/N x 100%   | Index % | Category  |
|---|-------------|-----------|----------------|---------|-----------|
| The large area size is significantly effective for activities Outdoor activities  | 105         | 128       | 105/128x100%   | 82%     | Excellent |
| The size of the Jenggala area accomplishes suitable standards   | 103         | 128       | 103/128x100%   | 80,4%   | Excellent |
| The size of the parking area is overly limited.   | 104         | 128       | 104/128x100%   | 81,2%   | Excellent |
| Jenggala area is excessively wide   | 96          | 128       | 96/128x100%    | 75%     | Good      |
| Have a standard size for the implementation of outdoor learning activities  | 98          | 128       | 98/128x100%    | 76,5%   | Good      |
| Jenggala area is less effective for outdoor activities with more than 30 students.                                      | 101         | 128       | 101/128x100%   | 78,9%   | Good      |
| The camping area can accommodate 1000 tents.  | 108         | 128       | 108/128x100%   | 84,3%   | Excellent |
| The place to set up a tent is too narrow, so it can only accommodate a few tents.                                       | 111         | 128       | 111/128x100%   | 86,7%   | Excellent |
| There is no shelter to take refuge in the Jenggala area   | 104         | 128       | 104/128x100%   | 81,2%   | Excellent |
| There is already an evacuation route if, at any time, a disaster occurs while carrying out outdoor learning activities. | 104         | 128       | 104/128x100%   | 81,2%   | Excellent |
| Sum   | 1034        | 1280      | 1034/1280x100% | 82%     | Excellent |

The data presented in Table 3 shows that the environmental conditions in Jenggala are in the Excellent category. The survey results show that 7 indicators received an excellent score, and 3 received a good score. The average standard area indicator score is 81% or Excellent category.

#### 4. Land contour indicator

Land contour indicator are used to assess the suitability of Jenggala as a location for implementing outdoor learning activities based on ground surface conditions. Land contouring services include assessments of the surface and texture of the soil in the implementation area of the outdoor learning activity. The results of the study of land contour standards in Jenggala are presented in Table 4 below.

**Table 4. Results of Land Contour Indicator Questionnaire Analysis**

| Question  | Total score | Score Max | P=F/N x 100%  | Index % | Category |
|---|-------------|-----------|---------------|---------|----------|
| Jenggala Nature Tourism has a flat land surface   | 97          | 128       | 97/128x100%   | 75,7%   | Good     |
| The field in Jenggala Nature Tourism can be used for all games and outdoor learning activities.             | 97          | 128       | 97/128x100%   | 75,7%   | Good     |
| The field of Jenggala Nature Tourism has a hard texture and endangers students.                             | 94          | 128       | 94/128x100%   | 73,4%   | Good     |
| The land contours in Jenggala tend to be slippery and endanger students                                     | 97          | 128       | 97/128x100%   | 75,7%   | Good     |
| The contour of the land in Jenggala is suitable for outdoor learning infrastructure.                        | 96          | 128       | 96/128x100%   | 75%     | Good     |
| The land contour in Jenggala could be more balanced, making it easier for activities outside the classroom. | 100         | 128       | 100/128x100%  | 78,1%   | Good     |
| The Jenggala field does not hold a steep surface.   | 95          | 128       | 95/128x100%   | 74,2%   | Good     |
| The Jenggala field is very suitable for a camping area.   | 101         | 128       | 101/128x100%  | 78,9%   | Good     |
| Sum   | 777         | 1024      | 777/1024x100% | 75,8%   | Good     |

The data presented in Table 4 shows that the land contour in Jenggala is in the Good category. The survey results show that 8 indicators received a Good score. The average standard area indicator score is 75.8%, or the Good category.

#### 5. The Combining All Aspects

Results Combining all aspects results in the Jenggala utilization infrastructure for outdoor learning activities consisting of safety regulations, specific environment, standard size area, and land contour. The results of examining the combining aspects of outdoor learning activity in Jenggala are presented in Table 5 below.

**Table 5 Combined All Aspect Results**

| Question   | Total score | Score Max | P=F/N x 100%   | Index % | Category  |
|--|-------------|-----------|----------------|---------|-----------|
| Meet the rules security                                | 920         | 1152      | 920/1152x100%  | 80%     | Excellent |
| Meet specifications Outdoor learning environment Class | 825         | 1024      | 825/1024x100%  | 80,5%   | Excellent |
| It has a s tandard size                                | 1034        | 1280      | 1034/1280x100% | 82%     | Excellent |
| Has suitable land contour                              | 777         | 1024      | 777/1024x100%  | 75,8%   | Good      |
| Sum  | 3556        | 4480      | 3556/4480x100% | 79%     | Good      |

Based on Table 5 above, the overall average utilization of Jenggala Natural Tourism Objects as learning infrastructure for outdoor learning activities is 79% or included in the Good category.

## DISCUSSION

The utilization of tourism objects for education has significant potential to improve student's learning and understanding of various aspects. Physical outdoor learning activities will improve knowledge and develop students' attitudes and personalities. The study results stated that outdoor learning activities can develop students' tolerance attitudes and learning motivation (Nasution, 2018; Nurjanah & Nanang, 2019; Sofyan et al., 2021). The research was obtained through the distribution of questionnaires, which included several basic aspects of structuring infrastructure for outdoor learning activities in implementing physical education.

Based on the results of data processing that has been carried out, the Jenggala natural tourism object has good potential to be operated as a location for learning activities. The highest indicator was obtained in the security indicator, with a percentage value of 82.5%; this result was obtained due to the adequate level of security in Jenggala. From the interview results with research respondents, it was obtained that teachers ensure the student's safety because Jenggala has sufficient security officers, facilities, and well-arranged infrastructure. The existence of good potential certainly encourages the surrounding community, especially teachers, to utilize Jenggala natural attractions as a capital of outdoor learning activities. The availability of guaranteed security will convince teachers and parents to feel safe and comfortable in the natural tourist attraction area and allow them to take advantage of all the facilities provided (Pepriana, 2019).

The lowest indicator is the land contour indicator, with a percentage of 75.8%; the indicator gets a low value due to the soil contour in Jenggala still having many varying contours, ups, and downs, and slippery when rainy. Even so, it is a natural factor that maintains the naturalness of Jenggala. The management has considered the condition of the contour of the land by providing maximum security services for visitors. This research is supported by research conducted by Alfiansyah (2022) and Azahri & Santoso (2019), which stated that the bumpy ground contour is quite ideal and has several advantages for



jumping and running activities, as well as being a natural shade for passive games such as playing sand and water.

Jenggala natural attractions have fulfilled the general principle of arranging outdoor play areas. This research is in line with the research of Yulianasari and Sriyanto (2019), which aims to analyze the potential of a spot area to be utilized as a source of learning for students. Similar research to Maryana's research (2013) stated that to acquire maximum results, the arrangement of the learning outdoor environment must complete several criteria, specifically safety regulations, specifications of the outdoor learning environment, area size standards, and having appropriate land contours.

The suitability of the location for outdoor learning activities results from maintenance steps, good management, and positive reception from visitors or tourists (Alamsyah, 2019; Saputri et al., 2014). Based on the research results, it is essential to maintain continuous management to ensure that Jenggala natural attractions retain quantity and quality standards to provide a satisfactory experience for visitors.

## CONCLUSION

Based on the results of research data analysis, Jenggala natural tourism objects are suitable as infrastructure facilities for outdoor learning activities. Jenggala natural tourism objects are excellent for fulfilling the indicators supporting outdoor learning activities, such as safety regulations, specific environment, standard size area, and land contour.

Further research recommendations can be studied on the influence of natural attractions on improving students' cognitive intelligence, affective aspects, and movement skills. In addition, further research can link the facilities and infrastructure of tourist attractions to increase student learning motivation, especially in physical education subjects.

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