Volume 2 No. 1, Tahun 2024
Page : 30-37
e-ISSN 2987-9140 (Online)
Doi: https://doi.org/10.26740/ijgsme.v2n1.p30-37
Available online :
https://journal.unesa.ac.id/index.php/ijgsme

IJGSME
International Journal of Geography, Social, and Multicultural Education
https://journal.unesa.ac.id/index.php/ijgsme

Received: 29-12-2023
Revised: 05-05-2024
Published: 01-06-2024

USE OF OUTDOOR AND INDOOR STUDY METHODS ON STUDENT LEARNING OUTCOMES AT SMAN 16 SURABAYA

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Abstract

Learning is an activity that can produce changes in a person, both actually and potentially. Learning will be more meaningful if children experience what they learn, not knowing it. One of the learning methods that position the active role of students in this learning is the *outdoor and indoor* learning methods. The problem raised in this study is whether there are differences in initial test scores and final test scores and differences in learning outcomes in experimental classes using contextual learning methods and classes using conventional methods. This study used Mann Whitney statistical test to analyze the difference in cognitive ability and learning outcomes between two classes, XI-1 and XI-2, before and after the application of certain learning methods. The pretest results showed that both classes had similar initial abilities. However, after the treatment, the class that applied the Problem-Based Learning (PJBL) method with Outdoor Study (Vlog/Long to the Zoo) showed a significant increase in learning outcomes compared to the other class that used PJBL with LKPD. This finding shows that the integration of the contextual approach in the PJBL method with Outdoor Study effectively stimulates students' critical thinking, strengthens problem analysis, and improves learning effectiveness compared to the conventional approach.

Keywords: *Outdoor learning*, contextual approach, learning outcomes.

INTRODUCTION

Education, as an integral part of human life in the global and information era, must be able to provide and facilitate the growth and development of intellectual, social, and personal skills. So, it is necessary to improve the quality of education, especially the quality of learning in the 21st century, known as the smart society 5.0 era. Quality learning requires planning, creating learning conditions, and appropriate strategies so that learning is more meaningful in achieving goals.

In educational activities, students have a position as learning subjects who play a major role, so in the teaching and learning strategy process setting, students are required to carry out full activities, even individually studying teaching materials. Thus, if in terms of teaching, educators are placed as the main role in providing information, then in instruction (learning), teachers/educators play a more dominant role as facilitators, managing various resources and facilities for students to learn (Sanjaya, 2015).

A learning approach that is appropriately oriented toward students will have an impact on increasing learning motivation, strengthening the power of understanding, deeper understanding of the knowledge being studied, and more positive attitudes of students toward the material being taught.

The development of this student-centered learning model (student-oriented) is in line with the development of constructivism theory, which is rooted in the view of progressive education. This understanding is always focused on the development of students. American education expert John Dewey also put forward a similar statement that learning must be centered on students and place them in a very important position (Yaumi, 2016).

In this way, educators no longer act as learning resources (resources), but act as people who guide and facilitate so that students are willing and able to learn. Students are not considered as learning objects that can be regulated and limited by the teacher's wishes but are placed as subjects who learn according to their talents, interests, and abilities.

Learning methods are methods or steps and stages systematically determined by the teacher to achieve learning objectives. The method is used to realize the established strategy. Choosing a learning method requires "carefulness" from the teacher because students (students) have different understanding and learning styles. Choosing appropriate and varied learning methods supports a conducive and enjoyable learning atmosphere. A pleasant and memorable learning atmosphere will make students actively involved in achieving the learning goals/competencies expected from students (Aswan, 2016).

During the learning process, teachers rarely use learning methods and are still teacher-centered, which makes students' understanding less, and students become bored, tend to be passive, and lack initiative. The learning process in the classroom, even though the curriculum has changed and been refined according to needs by demanding active involvement of students in learning, teachers use direct learning, which results in students becoming passive because in the direct learning model, the most active party is the teacher. Based on these facts, in geography learning, it is necessary to apply problem-based learning models and methods and involve students, which will later influence high school students' creative thinking abilities.

Efforts that can be made include developing LKPD based on project-based learning or using outdoor learning (Vlog/Songs to the Zoo) based on project-based learning. Based on the background description above, the researcher tried to conduct this research entitled "Development of LKPD Based on Problem-Based Learning to Improve Student Learning Outcomes at SMA Negeri 16 Surabaya in class XI IPS Geography Learning. Researchers tried to carry out this research entitled "Use of Outdoor Study Methods on Student Learning Outcomes at SMAN 16 Surabaya".

The aim of this research is to find out the comparison of the use of two learning methods to improve student learning outcomes at SMA 16 Surabaya by using two different learning methods, namely developing LKPD based on Problem-Based Learning and using the Outdoor Learning method (Vlog/Song to the

Zoo), which is based on Problem-Based Learning.

METHOD

Research Methods and Techniques

This research is experimental research, with three variables, namely the independent variable, the dependent variable and the control variable which aims to minimize the influence of the initial variables or initial differences between the classes studied

Population and Sample

The population in this study was classified. The samples used in research made it easier to collect data from the population. The method of sampling in this research is the opportunity or probability sampling method, namely providing equal opportunities for all populations to be sampled, using class sampling techniques or cluster random sampling. Based on the explanation above, the researcher chose two classes to be used as research samples, with details in the table below:

Table 1. Experimental Class

No	Characteristics	Class XI	
		1	2
1	Highest Pretest Score	88	88
2	Nilai Pretes terendah	75	75
3	Average score	80,78	80,94

Source: Sem Pretest Scores. 1 TP. 2023/2024

The sample that has been determined must have the same traits and characteristics, such as in terms of the initial abilities of the students before being given treatment. To see students' initial abilities before being given treatment. Researchers used the Mann-Whitney test on the odd semester pretest results. The two classes have an average pretest score, namely, class XI-1. = 80.78 and class XI-2 = 80.94.

Research variable

Research variables are concepts that have value when defining a research study. The independent variable in this research is geography learning, either using the assignment method in the form of LKPD or using outdoor learning (Vlogs/Songs to the Zoo). Meanwhile, the dependent variable is student learning outcomes. Meanwhile, the control variables in this research are the results of students' pretests and the use of the PJBL learning model.

Research Instrument

The instruments used in this research consisted of pretest questions for all experimental classes, PJBL, LKPD for classes XI-1 and PJBL, Outdoor Study (Vlog/Song to the Zoo) for class XI-2 which was based on the PJBL learning model.

Data Processing and Analysis Techniques

The data in this research was collected through conceptual understanding tests through tests written pretest, "PJBL, LKPD" and "PJBL, Outdoor Study (Vlog/Song to the Zoo)". The research data were processed and analyzed using Microsoft Excel 2013 software and SPSS Version 23.0 for Windows software to answer the research problem formulation. The data obtained is in the form of students' answers to tests.

RESULTS AND DISCUSSION

Pretest Results

All data is first analyzed using a normality test so that statistical testing techniques can be determined. Processing all data using SPSS 23.0 software and Microsoft Office Excel 2013. The following describes the analysis of the research data.

Mann Whitney Test

This is a non-parametric statistical test used to determine whether there are significant differences between the two classes studied. The Mann-Whitney test is carried out by comparing the Asymp probabilities. Sig. (2-tailed) with alpha value (α). The results of the Mann-Whitney test, the pretest scores in the experimental class can be seen in the following table:

Table 2. Mann Whitney Pretest Results

Ranks

	KELAS	N	Mean Rank	Sum of Ranks
NILAI PRETES	KELAS XI 1	37	37,61	1391,50
	KELAS XI 2	38	38,38	1458,50
	Total	75		

Source: 2023 Mann Whitney test results

Test Statistics

	NILAI PRETES
Mann-Whitney U	688,500
Wilcoxon W	1391,500
Z	-,155
Asymp. Sig. (2-tailed)	,877

a. Grouping Variable: KELAS
Source: 2023 Mann Whitney test results.

Based on the "Test Statistics" output in the Mann-Whitney test above, the Asymp is known. Sig. (2-tailed) of 0.877 is greater than <0.05 probability value. So, as is the basis for decision-making in the Mann-Whitney test, there is no difference in the pretest results between class XI-1 and class XI-2.

Thus, it can be assumed that the level of cognitive ability of students which includes mastery of concepts between the experimental MMM classes XI-1 and XI-2 before receiving treatment, the average value is not much different so that the initial abilities of the two classes are considered the same.

Results of PJBL, LKPD, and PJBL, Outdoor Study (Vlog/Song to the Zoo)

All data is first analyzed using a normality test, so that statistical testing techniques can be determined. Processing all data uses SPSS 23.0 software and Microsoft Office Excel 2013. The following describes the analysis of the research data.

Mann Whitney Test

Based on the pretest results of students after receiving different treatments, in class XI-1, they used PJBL and LKPD, and in class XI-2, they used PJBL, Outdoor Study (Vlog/Song to the Zoo). The results of the Mann-Whitney test in the experimental class can be seen in the following table:

Table 3.2 Mann-Whitney Test Results After Treatment

Ranks

	KELAS	N	Mean Rank	Sum of Ranks

NILAI METODE PEMBELAJARAN	KELAS XI 1 LKPD	37	44,76	1656,00
	KELAS XI 2 OUTDOOR STUDY	38	31,42	1194,00
	Total	75		

Source: 2023 Mann Whitney test results.

Test Statistics

	NILAI METODE PEMBELAJARAN
Mann-Whitney U	453,000
Wilcoxon W	1194,000
Z	-2,675
Asymp. Sig. (2-tailed)	,007

a. Grouping Variable: KELAS

Source: 2023 Mann Whitney test results.

Based on the "Test Statistics" output in the Mann-Whitney test above, the Asymp is known. Sig. (2-tailed) of 0.007 is smaller than <0.05 probability value. Therefore, as is the basis for decision-making in the Mann-Whitney test, it can be concluded that there are differences in learning outcomes using the PJBL learning strategy, LKPD in class XI-1 and using the PJBL learning strategy, Outdoor Study (Vlog/Song to the Zoo) class 2.

The scores obtained in the two research classes, which are basically learning progress scores after treatment, show a significant difference between the scores for class XI-1 using PJBL, LKPD and class XI-2 using PJBL, Outdoor Study (Vlog/Song to the Zoo), which is higher.

This shows that the PJBL learning method, Outdoor Study (Vlog/Song to the Zoo), can have a big influence on student learning outcomes because students are trained to look for problems and collect facts or data directly so that they can stimulate students' critical thinking. To solve problems, develop and analyze the problem to find a solution. This is in accordance with research results (Prasetya et al., 2020), which state that outdoor learning is very effective in improving student learning outcomes; Outdoor learning allows students to apply student learning practically (Fiennes et al., 2015). According to Amaluddin et al. (2019), outdoor learning also increases effectiveness in spatial thinking abilities.

Outdoor learning, often known as outdoor learning, has received significant attention as an effective method for strengthening learning experiences (Tekakpınar, 2020). This method involves learning activities carried out outside the classroom, which can include natural or artificial environments that are different from traditional classroom settings. Outdoor education provides students with opportunities to engage directly with subject matter, which often positively impacts understanding and retention of knowledge (Meighan & Rubenstein, 2018).

One of the main advantages of outdoor learning is its ability to improve students' physical and mental health (Jucker, 2022). Outdoor activities naturally invite more physical movement, and this contributes to physical health (Mann et al., 2022). Additionally, natural environments have been shown to reduce stress, improve mood, and improve overall mental well-being. Therefore, outdoor learning not only enriches academic understanding but also supports students' holistic health.

From a social perspective, outdoor learning facilitates more natural and

unstructured interactions between students, which can strengthen social skills such as communication, cooperation, and leadership (Arianti & Aminatun, 2019). In outdoor settings, students often work in groups, overcome challenges, and share discoveries, which helps build a sense of community and trust (Becker et al., 2017). This is invaluable in developing important interpersonal skills.

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Based on the description above, students with PJBL, Outdoor Study (Vlog/Song to the Zoo), are better than students in classes that only use PJBL, LKPD. So in learning outcomes, the contextual PJBL, Outdoor Study (Vlog/Song to the Zoo) method is superior to conventional learning models.

CONCLUSION

Interesting results were found based on pretest and post-test data analysis carried out with the Mann-Whitney statistical test using SPSS 23.0 software and Microsoft Office Excel 2013. At the pretest stage, there were no significant differences in cognitive abilities between classes XI-1 and XI-2, indicating that both classes had similar initial abilities before receiving treatment.

After implementing the learning method, significant differences were seen in learning outcomes between the two classes. Classes that apply the PJBL learning method with Outdoor Study (Vlog/Songs to the Zoo) show better learning outcomes than classes that use PJBL and LKPD. This indicates that the contextual approach of the PJBL method with Outdoor Study can stimulate students' critical thinking, allowing them to overcome and analyze problems more effectively compared to conventional learning approaches.

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