SOCIETY: Jurnal Pengabdian Masyarakat
Vol. 4, no. 3 (2025): May, pp. 447-452
E-ISSN:2827-878X (Online-Electronic)

Implementation of Map Introduction in Learning to Improve Spatial Thinking Understanding in Elementary School Students in Jambeyan Village

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ARTICLE INFO

Article history

Received : 8-4-2025

Revised : 19-5-2025

Accepted : 24-5-2025

Keywords

Spatial literacy;
Map-based learning;
Geography education.

ABSTRACT

The community in Jambeyan Village faces challenges in improving spatial literacy among elementary school students, which affects their ability to analyze spatial patterns and geographic phenomena. To address this issue, a community engagement program was implemented to introduce map based learning US a means to enhance spatial thinking skills. The program was conducted from March 17 to 19, 2025, at Jambeyan 1 Public Elementary School, Jambeyan 2 Public Elementary School, and Elementary School Country Jambeyan 3, involving 104 students. The Implementation methods included lectures, discussions, and hands-on activities using land use maps of Jambeyan Village. The results showed a significant improvement in students' understanding of spatial relationships, demonstrated by their ability to interpret land use maps and describe spatial patterns in their surroundings. However, challenges such US limited interactive learning media and inadequate internet access were encountered. Despite these obstacles, the initiative successfully increased students' interest in spatial learning and highlighted the effectiveness of visual learning tools in geography education. Future programs should focus on integrating digital mapping technologies to further enhance learning outcomes.

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A. Introduction

Education plays an important role in developing various skills cognitive Which fundamental use support success academic and skills participant educate. In education modern Wrong One skill that is the main focus is *spatial thinking*. *Spatial thinking* is a person's skill in understanding, interpreting, and analyzing the spatial relationships between objects, locations, and phenomena around them. In everyday life, *spatial thinking* is used to help someone understand how a place relates to other places, how there are objects in space that interact with each other. This skill includes understanding about location, distance, patterns, directions, and relationships between various objects in a space that interact with each other and change over time.

Spatial literacy is a vehicle for developing thinking processes. in a way spatial, Which contribute in increase knowledge And students' skills in thought patterns, action patterns, and reasoning abilities related to objects and spatial relationships in everyday life and the surrounding environment (Mutia, 2019). In addition, *Spatial Literacy* also includes students' ability to observe in detail the visual representations found in the environment in which they live, as well as skills in comparing similarities and differences in characteristics or conditions between one space with other spaces.

Jambeyan Village is a village located in Sambirejo District. Regency Sragen Province Java Middle, Which own wide 7.42 m2 or 16.18% from total wide region Subdistrict Sambirejo. Based on Disaster Risk Assessment Document for Sragen Regency 2023-2027, Sambirejo District own level risk danger landslide most tall between region others that There is in Regency Sragen namely with wide region Which affected by 5578.94 Ha. Jambeyan Village is located at the foot of Mount Lawu, where the morphology in this area is in the form of rather steep undulating hills, in addition, the use of land that is less considered by the surrounding community also causes the level of landslide risk to be high compared to the sub-district other Which There is in Regency Sragen.

In this case, spatial thinking *has* a very important role. important in disaster mitigation, especially in identifying vulnerability patterns. disaster land landslide, understand factors the causes, and design appropriate mitigation strategies. With the ability to think spatially, public can analyze distribution region Which vulnerable landslide disasters, the relationship between topography and disaster risk levels, and environmental changes that will occur in the future.

Use media learning own role important in support the teaching and learning process to achieve optimal learning outcomes. Maps are one of the learning media that function as visual tools to help students understand complex concepts better. In addition to making it easier to understand the material, maps also provide a representation concrete information regarding the relationship between space, environment, and natural phenomena that occur in the surrounding environment (Access et al., 2024).

B. Methods

Map Introduction Implementation Activities to Improve Understanding of *Spatial*

Thinking on student implemented on date 17 - 19 March 2025 in SD Jambeyan 1 State Elementary School, Jambeyan 2 State Elementary School and Jambeyan 3 State Elementary School which are located in Jambeyan Village Jambeyan, Subdistrict Sambirejo, Regency Sragen, Java Middle.

activity of map introduction was carried out by the MBKM grant team with a total of 104 students. This program was implemented using the observation method, lecture And discussion through socialization And training introduction map through the land use map in Jambeyan Village. The observation method was used to determine the participants in the map introduction socialization. The lecture method was used For give description And understanding related map And *Spatial Thinking*. Discussion method is used to improve the ability to understand, analyze and interpret spatial relationships between objects.

C. Results And Preparation

Stage Discussion

Before conducting the map introduction activity to improve understanding of *Spatial Thinking* in Elementary Schools, preparations were carried out carefully to support the smooth running of the activity. At this preparation stage, visits were made to the Principals of each Elementary School to discuss the implementation schedule so as not to clash with school activities. Then, we made a Jambeyan Village Image Map using *Google Earth* And make Map Use Land Village Jambeyan as a tool to provide an introduction to *Spatial Thinking* to students. After the map has been made, the next step is to create a PPT of the material that will be delivered in the Introduction to *Spatial Thinking activity* using *Canva* . Making this material is useful for providing an explanation that is easier for students to accept.

Stage Practice

The first step taken is to provide a general presentation of the material on maps. Students present the material in *PowerPoint form* about map components and how to read maps. In this step, students given chance For answer question lighter in the form of map functions that have been used in everyday life. According to McTighe and Wiggins in Lestari, (Lestari et al., 2023), explains that trigger questions are questions designed to stimulate or trigger the potential of each student to think critically during the learning process. This will raise further curiosity and produce new questions. In addition to being given trigger questions, students carry out spatial orientation which aims to provide students with an overview of the geographical conditions in their area. This spatial orientation is carried out by presenting the Jambeyan Village Image Map to students and then asking them to show the location of their elementary school.

Step second, on every class shared become 5 group discussion which aims to carry out activities to identify Village Land Use Maps Jambeyan. After distribution group, student given chance to group each land use in Jambeyan Village on tracing paper by delineating using colored pencils. The colors used to delineate the land use

include: orange indicates residential land use, green indicates forest land use, blue stripes indicate rice field land use, dark blue indicates water body land use, and yellow indicates open land land use.

Picture 1. Implementation Introduction Map

Jambeyan Village Land Use Map. in front class. Matter the is a form reflection for students who aim to know so far where understanding Which obtained from the start beginning activities until the end of the activity regarding understanding *Spatial Thinking* . At this reflection stage, students can explain each color in land use based on the legend on the Jambeyan Village Land Use Map. Students can also explain that in Jambeyan Village, it is dominated by forest and rice field land use, while the number of settlements in Jambeyan Village is moderate. Therefore, reflection is very important to evaluate the effectiveness of material delivery.

Stage Evaluation

After conducting map introduction activities to improve understanding of *Spatial Thinking* in Elementary and Middle Schools, an evaluation was carried out, there were several things that needed to be considered, such as students who still had difficulty understanding map components due to the lack of trigger questions given when the material was delivered, There were also some students who needed special attention to be able to understand the concept of *Spatial Thinking* better, in addition there were limitations in interactive learning media for students so that students were less responsive to the learning methods applied. In dividing student groups it was still difficult to condition, and also the limitations of the internet network which was not adequate in several schools in the Jambeyan Village area.

D. Conclusion

Map introduction socialization activities carried out by the MBKM Geography Education Grant Team, FKIP UNS in Jambeyan 1 Public Elementary School, Jambeyan Public Elementary School 2, And SD Country Jambeyan 3 succeed increase understanding students about draft *Spatial Thinking* . Through program This, student capable understand the basics of maps, land use patterns, and spatial relationships

in the surrounding environment. This program not only provides theoretical understanding, but also creates direct experience through lecture-based learning methods, discussions, and practices of delineating land use on maps. This spatial data visualization approach has proven to be quite effective in improving students' critical and analytical thinking skills. Students can identify geographical relationships between their area and natural phenomena, especially in the concept disaster mitigation land landslide. However, Enough what a shame There are still several obstacles during the program process, such as limited interactive learning media in each school, as well as network conditions. Internet Which not enough adequate.

These factors require special attention so that they can be improved further in order to increase effectiveness. learning can increase. So from That, expected The approach in this program can be continuously developed and integrated into the ongoing curriculum.

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