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Enhancing Spatial Intelligence through Map Media in Elementary Social Studies

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ABSTRACT

Spatial intelligence is a crucial aspect of social studies education that often lacks optimization due to passive learning methods and inadequate media use. This study aims to explain the application of social studies learning in improving students' spatial intelligence through the enhancement of teachers' ability to prepare lessons, specifically utilizing map media in class V at SDN 07 Marisa. The research employed a qualitative descriptive design, with data collected through direct observation and document study involving the school principal and class teachers. Data were analyzed using interactive models comprising data reduction, data display, and conclusion drawing. The results indicate a significant difference in student spatial comprehension when teachers competently utilize map media compared to conventional teaching. The integration of map media effectively transitions learning from an abstract concept to a concrete experience, thereby avoiding verbalistic knowledge and increasing student engagement in understanding geographical elements. In conclusion, the appropriate use of learning media in social studies significantly enhances students' cognitive, affective, and psychomotor skills regarding spatial intelligence**.**

Informasi Artikel

Kata Kunci:

media peta; IPS; kecerdasan spasial; pendidikan sekolah dasar; media pembelajaran

ABSTRAK

Kecerdasan spasial merupakan aspek krusial dalam pendidikan ilmu pengetahuan sosial (IPS) yang seringkali kurang optimal akibat metode pembelajaran pasif dan penggunaan media yang tidak memadai. Penelitian ini bertujuan untuk menjelaskan penerapan pembelajaran IPS dalam meningkatkan kecerdasan spasial siswa melalui peningkatan kemampuan guru dalam mempersiapkan pembelajaran, khususnya dengan memanfaatkan media peta di kelas V SDN 07 Marisa. Penelitian ini menggunakan desain deskriptif kualitatif, dengan pengumpulan data melalui observasi langsung dan studi dokumen yang melibatkan kepala sekolah dan guru kelas. Data dianalisis menggunakan model interaktif yang terdiri dari reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan adanya perbedaan yang signifikan dalam pemahaman spasial siswa ketika guru secara kompeten memanfaatkan media peta dibandingkan dengan pengajaran konvensional. Integrasi media peta secara efektif mengubah pembelajaran dari konsep abstrak menjadi pengalaman konkret, sehingga menghindari pengetahuan verbalistik dan meningkatkan keterlibatan siswa dalam memahami elemen-elemen geografis. Kesimpulannya, penggunaan media pembelajaran yang tepat dalam IPS secara signifikan meningkatkan keterampilan kognitif, afektif, dan psikomotorik siswa terkait kecerdasan spasial.

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1. Introduction

The existence of Social Studies at the elementary school level plays an essential role in preparing future generations to face complex social and spatial dynamics. However, field realities show that students' spatial literacy tends to remain passive because instructional practices frequently rely on abstract verbalization rather than concrete visualization. This lack of appropriate learning media makes it difficult for elementary students to grasp spatial concepts effectively, which are fundamentally required to understand the relationship between humans and their environments.

Previous studies emphasize the critical role of spatial information and spatial thinking skills in students' cognitive development [9]. Spatial intelligence has been identified as a significant predictor of students' ability to solve geometric and spatial problems in everyday life [1]. Furthermore, the integration of geospatial technology and spatial thinking has been proven to assist geographic understanding significantly [5]. Researchers have also highlighted the specific characteristics of spatial intelligence required in geography and social studies education to foster a deeper understanding of regional dynamics [3].

Despite the established importance of spatial literacy, there is still a noticeable condition where students' spatial thinking abilities remain limited due to a lack of mastery in utilizing actual maps during classroom instruction [12]. Most literature focuses on high school students or the use of advanced digital mapping [11], [8] , leaving a research gap regarding how a teacher's specific competence in designing and executing lessons using conventional map media can transform abstract spatial concepts into concrete ones for upper-grade elementary students. Therefore, this study introduces a novelty by comprehensively examining the relationship between elementary teachers' competence in utilizing conventional map media and the subsequent development level of students' spatial intelligence. This research aims to determine the optimization of using map media in Social Studies learning to improve students' spatial intelligence through enhancing teachers' lesson preparation capabilities at SDN 07 Marisa.

2. Method

This study utilized a qualitative descriptive design to deeply explain and analyze educational phenomena without testing statistical hypotheses. This design was chosen because it allows for an in-depth exploration of the learning process and the natural interactions between teachers, students, and learning media in a real classroom setting.

The research was conducted on February 3, 2023, in class V at SDN 07 Marisa, Pohuwato Regency, Gorontalo Province. Data collection was carried out using direct observation techniques during the Social Studies learning process, focusing on teacher-student interactions and the application of map media. Additionally, a documentation study was conducted to review the teacher's lesson plans and instructional materials. The school principal and the class V subject teacher acted as the primary informants, providing insights through unstructured interviews regarding their pedagogical strategies.

The collected data were analyzed through three interactive stages: data reduction, data display, and conclusion drawing. In the data reduction phase, raw observational notes and interview transcripts were filtered to extract relevant information specifically regarding map utilization and spatial intelligence indicators. The data display phase involved organizing these findings systematically into narrative texts. Finally, conclusion drawing was conducted to verify the impact of the media on students' cognitive and psychomotor spatial skills. This detailed and systematic procedure ensures the study's reliability and allows it to be replicated in similar elementary educational settings.

3. Results and Discussion

3.1 Results

Based on observations and interviews at SDN 07 Marisa, a significant difference was found regarding teachers' competencies in teaching Social Studies materials. The data revealed that teachers who possess a strong foundational understanding of spatial concepts and actively prepare map-based instructional scenarios succeed in creating a more engaging learning environment. When teachers utilized tangible learning media, such as wall maps and globes, student participation increased significantly.

Processed observational data indicate that students engaged with map media exhibit improved cognitive recognition of geographical locations. Instead of merely memorizing city names or topographies from textbooks, students were able to point out, trace routes, and explain the relative positions of different regions. Furthermore, their psychomotor skills improved as they actively navigated spatial problems presented by the teacher on the map. In contrast, classes taught using conventional lecturing methods displayed lower attention spans and struggled to conceptualize the physical distances and geographical relationships discussed in the lesson.

3.2 Discussion

These findings indicate that the teacher's role in selecting learning resources highly determines whether the learning process stops at verbalism or achieves concrete comprehension.

This aligns with the theory that elementary school students, particularly in the fifth grade, are in the concrete operational stage, requiring tangible objects to grasp complex ideas. In the spatial context, map media holds an inseparable added value in Social Studies learning, as it effectively bridges the gap between abstract geographical concepts and students' cognitive capacities [7].

The results of this study are supported by recent literature which states that the use of map media directly influences students' spatial thinking abilities [6]. By allowing students to manipulate information from earth surface objects that are too large to observe directly, maps serve as vital tools for spatial abstraction. The positive impact observed at SDN 07 Marisa corroborates the findings of Marzuqi [4], who found that map media significantly enhances spatial intelligence and problem-solving skills.

Compared to previous findings that highlighted student passivity resulting from media-less learning, the results of this study prove that the proactive integration of map media by teachers can alter classroom dynamics. Implementation of map introduction in early education has been shown to improve spatial thinking understanding fundamentally [2]. Furthermore, utilizing techniques such as map puzzles can further engage students' spatial intelligence [10]. Ultimately, these interactive and media-rich strategies facilitate an interdisciplinary approach to solving social and environmental problems, preparing students for more advanced spatial literacy challenges [15], [13].

4. Conclusion

Based on the research results, it can be concluded that the application of map media in Social Studies learning in class V at SDN 07 Marisa effectively improves students' spatial intelligence. This improvement is highly dependent on the teacher's pedagogical competence and readiness to integrate appropriate learning media during lesson preparation. The use of maps successfully shifts the learning paradigm from abstract verbal understanding to concrete, interactive experiences. Consequently, this instructional approach significantly enhances students' cognitive, affective, and psychomotor skills in conceptualizing and navigating spatial information.

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