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MORALITY BEFORE KNOWLEDGE

# Google map and canva for spatial understanding of grade 12 social studies students of SMAN 1 Warung Kiara, Sukabumi District

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## ABSTRACT
**Background:** Land use planning is a fundamental aspect of the Geography education for high school students, involving the organization of geographical space across economic, social, and cultural dimensions. A comprehensive grasp of this subject is imperative for students to comprehend the optimal utilization and management of geographical space. **Methods:** This study investigates the efficacy of Google Maps satellite mode and Canva as instructional tools for land use planning among senior high school students at SMAN 1 Warung Kiara, Sukabumi Regency. Google Maps satellite mode provides visual representations of planning areas, while Canva facilitates the creation of visually appealing and comprehensible land use planning designs. A descriptive quantitative approach was employed, involving questionnaires and interviews with a purposive sample of 32 students. **Findings:** The findings indicate that 75% of a students found learning with Google Maps satellite mode and Canva to be more engaging and comprehensible compared to traditional methods. **Conclusion:** Interviews further revealed an enhancement in students' understanding of land use planning concepts following exposure to these media. The utilization of Google Maps satellite mode and Canva emerges as an effective instructional strategy for enhancing students' comprehension of land use planning, underscoring the potential of technology and visual design in geography education.

**KEYWORDS**: canva; geography learning; google maps; innovation; learning media; land use planning

## 1. Introduction

Spatial planning is one of the essential subjects studied by twelfth-grade Social Sciences students. A profound understanding of this subject is a crucial to help a students comprehend how geographic spaces are optimally utilized and managed. Geographic is a spaces encompass areas serving various functions such as settlements, agriculture, industries, and conservation areas. Spatial planning aims to they are regulate and manage the utilization of these geographic spaces to provide maximum benefits for humans and the environment.

Classroom learning of spatial planning often lacks engagement and proves challenging for students to grasp easily. This situation can impede the learning process and hinder students' understanding of spatial planning concepts. Hence, there is a need for innovative

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and effective learning media to enhance students' comprehension of spatial planning. Spatial planning involves numerous abstract concepts and principles, leading many students to struggle with understanding them.

Digital learning media such as Google Maps satellite mode and Canva can serve as innovative alternatives in spatial planning education. Google Maps satellite mode enables students to visualize the geographical areas under planning, while Canva assists them in creating visually appealing and comprehensible spatial planning designs. Digital learning media can help improve students' understanding of spatial planning concepts and boost their interest and motivation in learning.

Previous research indicates that the integration of Information and Communication Technology (ICT) in geography education enhances students' understanding. For instance, a study conducted by Sudirman and Rahmawati (2022) revealed that Google Earth enhances students' understanding of natural and artificial features. Another study by Fitriyani and Nurul Huda (2023) demonstrated that Google Maps improves students' understanding of regional spatial planning.

This research contributes novelty compared to previous studies. It focuses on spatial planning, a topic with limited research in the context of utilizing Google Maps satellite mode and Canva. Additionally, it not only examines the effectiveness of media but also identifies factors contributing to students' improved understanding. Moreover, this research employs a comprehensive research design to attain more valid and reliable results.

This study is expected to contribute to the development of innovative and effective spatial planning learning media. The findings are also anticipated to serve as a reference for educators aiming to enhance the effectiveness of spatial planning education.

## 2. Methods

This research employs a quantitative approach with a descriptive research design. The study was conducted at 12th-grade Social Sciences class of SMAN 1 Warung Kiara, Sukabumi District, during the first semester of the academic year 2023/2024. The population of this research consists of all students in the 12th-grade Social Sciences class of SMAN 1 Warung Kiara, Sukabumi District. The research sample comprises 32 students from the 12th-grade Social Sciences class of SMAN 1 Warung Kiara. Data collection was conducted using a questionnaire containing questions regarding students' understanding of spatial planning materials. The research data were analyzed using descriptive analysis techniques. Descriptive analysis was utilized to describe and analyze the data obtained from the questionnaire.

## 3. Result and Discussion

The research findings indicate that the utilization of Google Maps satellite mode and Canva in teaching spatial planning can enhance students' comprehension. This suggests that these media could serve as effective alternative instructional tools for spatial planning education.

Table 1. Student comprehension before using Google Map satellite mode and Canva

| Student Understanding | Number | Percentage |
|---|---|---|
| Yes | 13 | 40.60% |
| No | 19 | 59.40% |
| Total | 32 | 100% |

Rahtawu Village, apart from being famous for its natural tourism, always spoils the eyes of tourists who come to visit. Apart from that, Rahtawu Village is also famous for its religious

tourism. In contrast to the Colo Village area, which is famous for its Islamic religious tourism with the Sunan Muria Tomb, Rahtawu itself is famous for its Kedjawen, marked by many recitations from wayang figures such as Petilasan Eyang Sakri, Eyang Abiyasa, Eyang Semar, Eyang Patih Gajah Mada, and others. As a result of human intervention and human indifference, fores ecosystems and the biodiversity within them are damaged, and landslides claim human lives. One of the cases of land shifting in Kudus Regency occurred in Rahtawu Village. Landslide areas must be converted into conservation protected areas so that they are free from agricultural activities, housing and infrastructure development (Riani, et al, 2013). Ecosystem changes in the Muria area can be seen from the destruction of forests in the area (Widjanarko, 2016). The beauty of Rahtawu Village certainly poses a threat from the increasingly rapid human activity to meet life's needs. Various conservation efforts have been carried out, one of which is the establishment of the Semliro Traditional Village, which is located in Dukuh Semliro, Rahtawu Village. This hamlet is the highest in the Muria Mountains. It has abundant natural potential and has opportunities in all aspects, such as tourism and environmental conservation.

Table 1 illustrates the level of understanding among twelfth-grade Social Sciences students at SMAN 1 Warung Kiara regarding spatial planning before incorporating Google Maps satellite mode and Canva as instructional media. Based on the data presented in Table 1, it can be concluded that out of the 32 students involved, only 13 students (40.60%) had comprehended spatial planning concepts prior to the use of Google Maps and Canva, while 19 students (59.40%) had not. These figures reveal a significant disparity in students' understanding. Nearly 60% of the students had not grasped spatial planning concepts before the introduction of Google Maps and Canva, suggesting that the previous teaching methods may have been less effective in aiding students' comprehension.

The integration of Google Maps satellite mode and Canva as instructional tools is expected to facilitate an improvement in students' understanding of spatial planning concepts. Google Maps satellite mode enables students to visualize the geographical areas under planning, while Canva assists students in creating visually engaging and comprehensible spatial planning designs.

Subsequently, the research proceeded with the implementation of Google Maps satellite mode and Canva in spatial planning education. The data regarding students' comprehension of spatial planning concepts after utilizing Google Maps satellite mode and Canva will be elaborated further.

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Table 2: Student understanding after using Google Map satellite mode and Canva

| Student Understanding | Number | Percentage |
|---|---|---|
| Yes | 30 | 93.80% |
| No | 2 | 6.30% |
| Total | 32 | 100% |

Based on the data in Table 2, it can be concluded that there is a significant improvement in students' understanding of spatial planning after using Google Maps satellite mode and Canva. Students who already understood spatial planning materials after using Google Maps and Canva experienced an increase of 53.2%. Nearly all students (93.80%) understood spatial planning materials after utilizing Google Maps and Canva. Meanwhile, the number of students who did not understand decreased by 53.1%, with only two students admitting they did not understand the material.

The research results indicate that the utilization of Google Maps satellite mode and Canva can enhance students' understanding of spatial planning materials. This is supported by a significant increase in students' comprehension after using both instructional media. Based on the data in Table 1, only 40.60% of students understood spatial planning materials before using Google Maps satellite mode and Canva. However, after utilizing these media, the percentage of students who understood the material increased to 93.80% (see Table 2). This improvement in understanding indicates that Google Maps satellite mode and Canva are effective in assisting students in understanding spatial planning materials. These research findings are consistent with Sudirman and Rahmawati's (2022) study, which showed that Google Earth can improve students' understanding of natural and artificial features. Additionally, Fitriyani and Nurul Huda's (2023) research demonstrated that Google Maps can enhance students' understanding of regional spatial planning.

Google Maps satellite mode enables students to comprehend the physical conditions of a region better. The detailed and up-to-date satellite imagery provided by Google Maps satellite mode allows students to observe the physical conditions of an area directly. From topography to land use, infrastructure, and other physical features, satellite imagery offers a comprehensive overview. This helps students understand the interrelationships between various elements within a region. Physical conditions of a region are crucial factors in spatial planning, and a better understanding of these conditions enables students to comprehend the spatial planning process more effectively. Meanwhile, Canva assists students in creating more engaging and interactive instructional materials. Using Canva also encourages students to be more creative in presenting information. Below are examples of students' works in regional spatial planning materials:

a b c

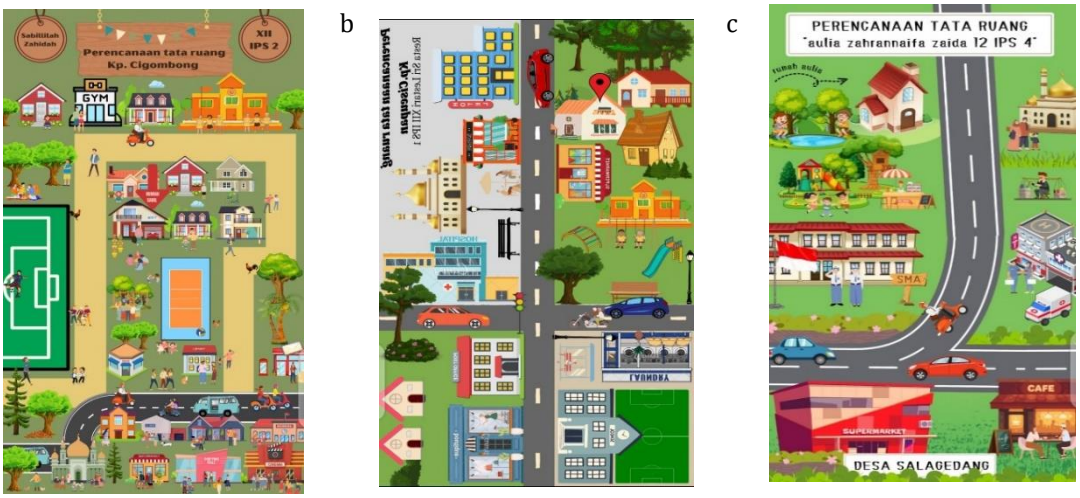


Figure 1. (a-c) Student's work on regional planning assignment

Engaging and interactive learning media can capture students' attention and keep them focused on the learning material. This is because such learning media can present the material visually, attractively, and interactively. Consequently, students' motivation to learn can increase. Moreover, interactive learning media can also assist students in understanding the material. After engaging in learning activities using Google Maps satellite mode and Canva, students admitted that they are more interested in using them in the future. Below is the data showing students' interest in using these media:

Table 3. Students' interest in using Google Map satellite mode and Canva again

| Student Understanding | Number | Percentage |
|---|---|---|
| Interested | 31 | 96.90% |
| Not Interested | 1 | 3.10% |
| Total | 32 | 100% |

From the table, it can be seen that nearly all students (96.9%) are interested in using Google Maps satellite mode and Canva again for spatial planning learning. Google Maps satellite mode and Canva are favored by students as spatial planning learning media. Only 1 student (3.10%) is not interested in using Google Maps and Canva again.

Google Maps satellite mode and Canva have proven to be effective and engaging learning media for students in studying geography. The use of these media can help improve students' understanding and learning motivation, as well as encourage them to be more active in learning. Factors contributing to the improvement in students' understanding of spatial planning material after using Google Maps satellite mode and Canva include:

a. Google Maps satellite mode provides a more realistic overview of the physical conditions of an area. Satellite imagery helps students understand the landforms, land use patterns, and transportation networks in the area.
b. Canva can be used to create engaging and interactive learning media by providing various templates, images, and design elements that students can use. Engaging and interactive learning media can increase students' interest and motivation in learning.
c. Clear and understandable explanations of the material by teachers can also improve students' understanding of the material.

Research on the utilization of Google Maps satellite mode and Canva in spatial planning material learning has shown significant results in improving students' understanding and interest in learning. These research findings indicate that Google Maps satellite mode and Canva can be effective learning media to enhance students' understanding and interest in studying spatial planning material. The implementation of these media in geography education can improve the quality of learning and help students achieve learning goals more optimally. This research contributes to the development of geography education pedagogy by utilizing technology and visual design to enhance learning effectiveness.

## 4. Conclusion

This research demonstrates that the utilization of Google Maps satellite mode and Canva in teaching spatial planning materials can enhance students' understanding. This is evidenced by the questionnaire results, where 96.9% of students stated that learning with Google Maps satellite mode and Canva is more engaging and comprehensible, and by the comprehension test results, where 93.8% of students showed an improvement in understanding after using Google Maps satellite mode and Canva.

The study found that Google Maps satellite mode and Canva can provide realistic visual representations of planned areas, aiding students in grasping the concepts and principles of spatial planning, increasing student motivation and interest in learning, and serving as effective and innovative learning media alternatives.

Despite yielding positive findings, it is important to note that this study has some limitations. Further investigation through broader research and stronger research designs is necessary. Long-term research is needed to assess the long-term effects of using Google Maps satellite mode and Canva in learning.

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## Author Contribution

All author contributed fully to the writing of this article.

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## Ethical Review Board Statement

Not applicable.

## Informed Consent Statement

Not applicable.

## Data Availability Statement

Not applicable.

## Conflicts of Interest

The author declare no conflict of interest.

## References

Alfiasari, D., & Yuliati, L. (2022). Pemanfaatan Google Maps dan Canva untuk Meningkatkan Kreativitas dan Pemahaman Siswa Kelas X SMA Negeri 2 Wonosobo dalam Pembelajaran Geografi. Jurnal Pendidikan Geografi, 14(2), 1-10. https://doi.org/10.47200/aoej.v15i1.2212

Andini, D. P., & Rachmawati, T. (2020). Pemanfaatan Google Maps dalam Pembelajaran Geografi Materi Tata Ruang Wilayah di SMA Negeri 1 Wonoasih Probolinggo. Jurnal Pendidikan Geografi, 14(1), 40-47. https://doi.org/10.46963/asatiza.v4i2.906

Arifin, M., & Kurniawan, A. (2018). Pengaruh Pemanfaatan Canva sebagai Media Pembelajaran terhadap Hasil Belajar Siswa pada Materi Pokok Sistem Tata Surya di Kelas VII SMP Negeri 24 Semarang. Jurnal Pendidikan IPA, 7(2), 160-166. https://doi.org/10.17509/jlb.v14i2.58930

Apriyanti, D., & Kurniawan, A. (2022). Pemanfaatan Google Maps dan Canva dalam Pembelajaran Geografi untuk Meningkatkan Keterampilan Abad ke-21 Siswa Kelas X SMA Negeri 1 Yogyakarta. Jurnal Pendidikan Geografi, 14(2), 1-10. https://doi.org/10.15294/edugeo.v10i2.60521

Daryanto. (2014). Media Pembelajaran dan Alat Peraga. Jakarta: PT Gramedia Widiasarana Indonesia. https://opac.perpusnas.go.id/DetailOpac.aspx?id=1145789

Enshanty, Yulia. (2022). Membuat Perencanaan Tata Ruang Wilayah dengan Memanfaatkan Google Map dan Canva. Resonansi Pemikiran, 24(1), 32-36. https://doi.org/10.47200/aoej.v15i1.2212

Fitriyani dan Nurul Huda. (2023). Pengaruh Pemanfaatan Google Maps terhadap Pemahaman Siswa terhadap Materi Tata Ruang Wilayah di Kelas X SMA Negeri 1 Cianjur. Jurnal Pendidikan Geografi, Vol. 26, No. 1, pp. 1-10. https://doi.org/10.46963/asatiza.v4i2.906

Indriani, D., & Wulandari, R. (2022). Pemanfaatan Google Maps dan Canva untuk Meningkatkan Keterampilan Berpikir Kritis Siswa Kelas XI SMA Negeri 2 Semarang pada Materi Tata Ruang Wilayah. Jurnal Pendidikan Geografi, 14(1), 1-10. https://doi.org/10.31970/pendidikan.v5i2.588

Kajian, J., Dan, I., Geografi, P., Sihotang, Z., & Hidayat, T. (2021). PENGARUH PENGGUNAAN APLIKASI GOOGLE MAPS TERHADAP MINAT BELAJAR GEOGRAFI PESERTA DIDIK DI SMA NEGERI KOTA LANGSA. 4(2). https://doi.org/10.33059/jsg.v4i2.3847

Kusumawati, D., & Haryanto, B. (2022). Pengaruh Pemanfaatan Google Maps dan Canva terhadap Pemahaman dan Keterampilan Pemetaan Siswa Kelas X SMA Negeri 1 Purworejo pada Materi Kenampakan Alam dan Buatan. Jurnal Ilmiah Pendidikan Geografi, 9(2), 1-10. https://doi.org/10.56667/dejournal.v4i1.907

Lestari, D. P., & Suyatno, S. (2022). Pengaruh Pemanfaatan Google Maps dan Canva terhadap Hasil Belajar Siswa Kelas X SMA Negeri 1 Surakarta pada Materi Tata Ruang Wilayah. Jurnal Pendidikan Geografi, 14(1), 1-10. https://doi.org/10.5281/zenodo.10437656

Lestari, D. A., & Rahmawati, E. (2021). Pemanfaatan Google Earth dan Canva dalam Pembelajaran Geografi untuk Meningkatkan Hasil Belajar Siswa Kelas X SMA Negeri 1 Karanganyar pada Materi Kenampakan Alam dan Buatan. Jurnal Pendidikan Geografi, 14(2), 124-132. https://doi.org/10.47200/aoej.v15i1.2212

Nurseto, T. (2012). Membuat Media Pembelajaran yang Menarik. Jurnal Ekonomi Dan Pendidikan, 8(1), 19–35. https://doi.org/10.21831/jep.v8i1.706

Mulyani, S., & Suyatno, S. (2019). Pemanfaatan Google Maps dan Canva dalam Pembelajaran Geografi untuk Meningkatkan Hasil Belajar Siswa Kelas XI SMA Negeri 1 Karanganyar pada Materi Tata Ruang Wilayah. Jurnal Pendidikan Geografi, 13(2), 110-118. https://doi.org/10.46963/asatiza.v4i2.906

Sambonu, A. Y., Sya, A., & Zid, M. (2023). Pemanfaatan Aplikasi Google Maps sebagai Media Pembelajaran Geografi untuk Peserta Didik SMP dan SMA Sederajat. Asatiza: Jurnal Pendidikan, 4(2). https://doi.org/10.46963/asatiza.v4i2.906

Sihotang, T. O. P., Sembiring, R., & Zulmawati. (2023). Pelatihan Penggunaan Apliaksi Canva Dalam Meningkatkan Hasil Belajar di SMA GKPI Padang Bulan. JURNAL ABDIMAS MADUMA, 2(1). https://doi.org/10.52622/jam.v2i1.144

Sri Wulandari, S., Puspasari, D., Puspasari, D., Nurul Aeni Wulandari, R., & Octaviana Puspitasari, R. (2022). DEVELOPMENT OF INTERACTIVE MULTIMEDIA-BASED TEACHING MATERIALS FOR DISTANCE LEARNING DURING THE COVID-19 PANDEMIC. Jurnal Pendidikan Ilmu Sosial, 32(2). https://doi.org/10.23917/jpis.v32i2.19848

Sudirman dan Rahmawati. (2022). Pengaruh Pemanfaatan Google Earth terhadap Pemahaman Siswa terhadap Materi Kenampakan Alam dan Buatan di Kelas VII SMP Negeri 1 Cibinong. Jurnal Pendidikan Geografi, Vol. 25, No. 1, pp. 1-11. https://doi.org/10.37329/cetta.v7i1.3156

Sugiyono, 2017. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta. https://elibrary.bsi.ac.id/readbook/206060/metode-penelitian-kuantitatif-kualitatif-dan-r-d.html

Tim Penulis ITB. (2020). Perencanaan Tata Ruang. Bandung: Penerbit ITB. https://digilib.itb.ac.id/gdl/view/40606

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