Exploring Students' Perceptions of Mobile Game-Based Social Studies Learning Model

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Abstract *This research explores students' perceptions of mobile game-based learning models in social studies instruction. A descriptive quantitative design was used, with a questionnaire survey given to 31 students with experience with mobile game-based learning models. The research results show that students generally have a positive perception of mobile game use in Social Studies learning, with the majority agreeing that mobile games increase their engagement and motivation. The study also identified several factors influencing student engagement and motivation, such as the relevance and quality of game content, the level of interactivity and feedback provided, and integration with the curriculum. The findings show that the mobile game-based learning model can potentially increase students' enthusiasm for learning social studies, especially for Generation Z students accustomed to using digital devices in their everyday lives.*

Keywords: *Mobile Game-Based Learning, Students' perception, Social Studies Education*

Abstrak *Penelitian ini bertujuan untuk menggali persepsi siswa terhadap model pembelajaran berbasis mobile game dalam pembelajaran IPS. Desain kuantitatif deskriptif digunakan, dengan survei kuesioner diberikan kepada 31 siswa yang memiliki pengalaman dengan model pembelajaran berbasis mobile game. Hasil penelitian menunjukkan bahwa siswa umumnya memiliki persepsi positif terhadap penggunaan mobile game dalam pembelajaran Ilmu Pengetahuan Sosial, dengan mayoritas dari mereka setuju bahwa mobile game meningkatkan keterlibatan dan motivasi mereka. Studi ini juga mengidentifikasi beberapa faktor yang mempengaruhi keterlibatan dan motivasi siswa, seperti relevansi dan kualitas konten game, tingkat interaktivitas dan umpan balik yang diberikan, dan integrasi dengan kurikulum. Temuan menunjukkan bahwa model pembelajaran berbasis mobile game berpotensi meningkatkan antusiasme belajar siswa dalam pembelajaran IPS, terutama bagi siswa Generasi Z yang terbiasa menggunakan perangkat digital dalam kehidupan sehari-hari.*

Kata kunci *: Pembelajaran Berbasis Game Seluler, Persepsi Siswa, Pendidikan IPS*

INTRODUCTION

The use of mobile games in education has become increasingly popular in recent years. The integration of mobile games in education has gained popularity, especially among Generation Z students who are accustomed to digital devices in their daily lives. Research has shown that mobile game-based learning in secondary education can increase students' engagement and motivation in learning (Huizenga et al., 2009). Meanwhile, the use of mobile game applications for classroom activities has experienced a massive increase in various educational institutions which have proven to be popular with learners. (Rashid et al., 2018).

Mobile game application development has been explored in various subjects (Elaish et al., 2019). It has been noted that digital gaming technology, especially mobile games, is emerging as an effective tool for creating enthusiasm for learning. In addition, the positive effects of applying digital games to education have been recognized, as mobile games embody the concept of learning by playing, which is considered a powerful instrument for meaningful learning. (Su et al., 2015). Additionally, the potential of mobile games in developing and maintaining 21st-century skills has been recognized in various studies, indicating that serious games are innovative tools with considerable potential to encourage and support active learning. (Romero et al., 2014). However, it is important to consider the potential dark side of strategies involving generational product innovation in mobile games (Chen et al., 2021). The impact of mobile gaming on individuals has been the subject of extensive research. Several studies have highlighted the addictive nature of mobile games, leading to emotional behavior, poor time management, and academic decline (Gioia et al., 2022). For example, research by Gioia and Colella (2022) found that men addicted to mobile games tend to suffer from social anxiety, indicating negative psychological impacts. Additionally, it has been shown that frustration, which is a psychological need, can lead to addictive behavior in mobile gamers, further supporting the idea of addiction (Kaya et al., 2020). Additionally, the influence of mobile gaming on the education and learning behavior of contemporary students has been investigated, with findings indicating potential adverse effects on academic performance also being reported (Lin & Liu, 2022).

However, it is essential to note that the positive impact of mobile games on learning is also highly reported. This statement is strengthened by research conducted by Wardaszko and Podgórski (2017), which shows positive cognitive learning effects from using mobile learning games compared to the conventional textbook learning process. A systematic literature review shows that games and simulations positively impact achieving learning objectives (Vlachopoulos & Makri, 2017). Similarly, it was found that mobile gaming applications helped increase students' motivation and increase their self-confidence. While there are concerns about the negative impacts of mobile gaming, such as addiction and academic decline, it is essential to recognize that

mobile gaming can also have positive effects on students' learning and motivation. Therefore, further research is needed to understand the implications of mobile game use comprehensively.

Seeing the massive development and benefits of game-based learning approaches, researchers are interested in further exploring students' perceptions as users of mobile games in social studies lessons. One of the schools in Jember Regency has implemented mobile game-based social studies learning called MOGE K-21 or mobile games to improve 21st-century skills with the MABAR syntax, which is an acronym for *main, belajar, refleksi* (play, learn, and reflect).

This research aims to address students' knowledge gap by exploring their perceptions of mobile game-based learning models in social studies, which can inform the development of effective and engaging learning environments for Generation Z students. This research aims to explore students' perceptions of mobile game-based learning models in social studies instruction and to identify factors that influence student engagement and motivation.

METHOD

This research uses a descriptive quantitative approach with a survey method, which aims to present and summarize data (Benek & Akçay, 2022). Data on student perceptions of mobile games-based social studies learning models were collected using questionnaires. This method is supported by Uzunboylu (2018), who discusses the use of questionnaire surveys in the context of mobile learning, in line with the research focus on student perceptions of the mobile game-based learning model that the researchers conducted.

Researchers used a Likert scale in line with the methodology discussed by Hammack & Ivey (2019), Carvalho & Santos (2021), and Marcus et al. (2021) with a scale calculation of 1-4 to avoid floating answers from respondents who chose neutral answers. The various bases mentioned above are used as a reference for research on students' perceptions of mobile game-based learning models in social studies learning. Guidelines for scoring questionnaires as a basis for data analysis are shown in Table 1 and Table 2.

Table 1. Questionnaire Assessment Criteria

No	Score	Answer
1	1	Strongly Disagree
2	2	Disagree
3	3	Agree
4	4	Strongly Agree

Table 2. Criteria for obtaining average student perceptions

No	Total Score	Student Perception Description
1	1,00 - 1,75	Very Low
2	1,75 - 2,51	Low
3	2,52 - 3, 27	High
4	3, 28 - 4, 00	Very High

Calculation of class intervals in statistics is a fundamental step in organizing and analyzing data. The class interval is determined by subtracting the highest score from the lowest score and then dividing it by the number of classes (Jeevaraj & Majumdar, 2021). It was found that the class interval width was 0.75, so that an interpretive classification could be determined. The questionnaire has a list of 17 questions which are divided into indicators according to the mobile game-based learning syntax and variables, as shown in the table 3.

Table 3. Questionnaire Grid for Student Perceptions of Mobile Games-Based Social Studies Learning Models

Research Variable	Indicator	Question Item Number
Syntax of Mobile Game-Based Learning Model	1. *Main* **(Play)**	
	Explanation of playing games	**1,2**
	Experience in playing games	**3,4,12,14**
	2. *Belajar* **(Learn)**	
	Discussion	**5,6**
	Presentation	**7,9**
	3. *Refleksi* **(Reflect)**	**13,16**
Mobile Game-Based Learning Model	4. **Holistic** Overall view regarding the learning model	**8, 10,11,15,17**

The research respondents comprised 31 students from one of the junior high schools in Jember Regency, Indonesia, who were willing to be subjects in this research.

RESULT AND DISCUSSION

Research conducted at SMP Negeri 5 Jember involved 31 respondents with the overall results of students appreciating positively towards mobile games-based social studies learning as indicated by student perception score of 3.50 or around 87.67% of all components in mobile games learning being appreciated positively. Researchers distributed student perception questionnaires at the end of the semester after students finished using the mobile game-based social studies learning model. The results of student perceptions of the learning model can be seen in table 4.

Table 4. Scores of Student Perception on Mobile Game-Based Learning Model

No	Indicator	Question Item	Maximum Score	Obtained Score	Percentage
1	Bermain (Play)	6	24	20.99	87,45%
2	Belajar (Learn)	4	16	13.8	86,25%
3	Refleksi (Reflect)	2	8	7.06	88,30%
4	Holistik (Holistic)	5	20	17.77	88,85%
	Total	17	68	59,62	
	Average score				87.67%

Based on Table 4, it is known that overall, the mobile game-based social studies learning model has good results by obtaining a score of 59.62 out of 68 maximum scores and has a percentage of 87.67%, which is included in the very high criteria. The results of student perceptions will be displayed through diagram 1 for more comprehensive visualization and understanding.
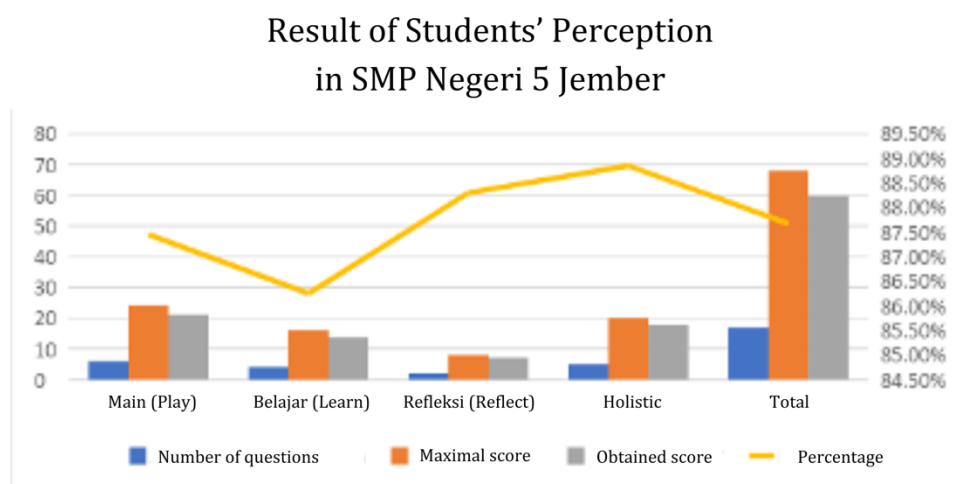
Result of Students' Perception in SMP Negeri 5 Jember

Diagram 1 Results of Student Perception at SMP Negeri 5 Jember

It can be seen in the diagram that the smallest percentage is at the *belajar* (learning) stage of the MOGE K-21 syntax, while the overall perception of the MOGE K-21 based social studies learning model is at the highest percentage.

It is known that every aspect of the MOGE K-21 syntax indicators received very high criteria. This shows that mobile game-based learning is positively highly valued by students in social studies learning. The positive results of social studies instruction using mobile games conducted by Lin & Liu (2022) support that games and mobile devices are very popular with students, while the results of the study by Wirawan et al. (2022) illustrate that social studies learning using mobile games can develop students' 21st-century skills.

Accommodating the characteristics of Generation Z students who like to use mobile phones is received positively by students in social studies instruction. The limitation of this research is that it only focuses on student perceptions and does not explore the perspectives of teachers or other stakeholders. Thus, the researcher recommends that further research be carried out to obtain a comprehensive picture.

CONCLUSION

This research shows that mobile game-based social studies learning is an efficient and exciting approach for students at SMP Negeri 5 Jember and has the potential to be widely adopted in the learning process. This study contributes to the academic community's perspective on using mobile games in learning environments, which are very popular with students. It is known that developing a learning environment using a mobile game-based learning model is appreciated by Generation Z students, who generally have a positive perception of mobile game-based social studies learning. Social studies learning using mobile games, besides being exciting and popular with students, has been proven in other research results to increase students' motivation and interest in learning and can improve 21st-century skills such as learning and innovation, digital literacy, and career and life skills. The philosophy of learning while playing in the mobile game-based social studies learning model, which is integrated into the curriculum, positively impacts the development of interest, motivation, and skills at SMP Negeri 5 Jember.

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