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The Implementation of Discovery Learning Assisted by Gimkit to Improve Student Learning Motivation in Social Studies Learning

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Abstract
Discovery learning has the advantage of allowing students to direct their own learning process by engaging their cognitive abilities and intrinsic motivation. This research aims to enhance students' learning motivation in social studies at SMPN 3 Surabaya. Based on classroom observations, it shows that students' motivation is classified as low. Less than optimal learning motivation impacts student engagement and learning outcomes. The application of the discovery learning model assisted by educational games as an effort to increase students' learning motivation. The method applied in this research is Classroom Action Research (CAR) in two cycles, utilizing both qualitative and quantitative data. Data collection was conducted using interviews, observations, and questionnaires. The subjects of the study were class VIII B. The results of this study proved that the pre-cycle questionnaire processing showed a low learning motivation score of 60%. In cycle 1, the result was 74%. In cycle 2, there was a significant increase with a learning motivation percentage reaching 84%. It can be concluded that the application of the discovery learning model assisted by educational games can significantly increase students' learning motivation. The implication is that teachers are expected to implement enjoyable learning based on educational media such as Gimkit, which is adaptive to local culture and student abilities, thereby creating a meaningful learning environment and continuously increasing active engagement.

Keywords: Learning Motivation, Discovery Learning, Gimkit

Abstrak
Pembelajaran penemuan memiliki keunggulan dalam memungkinkan siswa untuk mengarahkan proses belajar mereka sendiri dengan melibatkan kemampuan kognitif dan motivasi intrinsik mereka. Penelitian ini bertujuan untuk meningkatkan motivasi belajar siswa dalam mata pelajaran IPS di SMPN 3 Surabaya. Berdasarkan observasi kelas, terlihat bahwa motivasi belajar siswa diklasifikasikan sebagai rendah. Motivasi belajar yang kurang optimal berdampak pada keterlibatan siswa dan hasil belajar. Penerapan model pembelajaran penemuan yang dibantu dengan permainan edukatif sebagai upaya untuk meningkatkan motivasi belajar siswa. Metode yang diterapkan dalam penelitian ini adalah Penelitian Tindakan Kelas (KAR) dalam dua siklus, menggunakan data kualitatif dan kuantitatif. Pengumpulan data dilakukan dengan menggunakan wawancara, observasi, dan kuesioner. Subjek penelitian adalah kelas VIII B. Hasil penelitian ini membuktikan bahwa pengolahan kuesioner pra-siklus menunjukkan skor motivasi belajar yang rendah sebesar 60%. Pada siklus 1, hasilnya 74%. Pada siklus 2, terdapat peningkatan yang signifikan dengan persentase motivasi belajar mencapai 84%. Dapat disimpulkan bahwa penerapan model pembelajaran penemuan yang dibantu dengan permainan edukatif dapat secara signifikan meningkatkan motivasi belajar siswa. Implikasinya adalah guru diharapkan menerapkan pembelajaran yang menyenangkan berdasarkan media pendidikan seperti Gimkit, yang adaptif terhadap budaya lokal dan kemampuan siswa, sehingga menciptakan lingkungan belajar yang bermakna dan terus meningkatkan keterlibatan aktif.

Kata kunci: Motivasi Belajar, Pembelajaran Penemuan, Gimkit

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Introduction

Education is an important part of human life because it can influence all aspects of it. Education is the process of acquiring knowledge, understanding, and ways of acting in accordance with needs, which means all stages of knowledge and behavior development to gain experience in life (Aptanta et al., 2024). In today's digital era, education is undergoing significant transformation in line with the development of information and communication technology. The learning process is no longer limited to conventional methods but is increasingly enriched by various digital learning resources such as e-books, interactive applications, and game-based learning platforms (Siringoringo & Alfaridzi, 2024). Because technology can affect learning outcomes and help students develop their skills, it is thought to be crucial to use it to increase learning motivation (Dia. et al., 2024). When used properly, educational technology can boost student engagement and enhance learning quality (Djara. et al., 2025).

One approach that is relevant to these demands is the application of the Discovery Learning model, which provides space for students to discover concepts for themselves through exploratory and analytical processes (Prajayana et al., 2025). This model is very much in line with the principles of active and participatory learning, which are believed to be able to increase the intrinsic motivation of students. Intrinsic motivation is the support that arises from within each individual to achieve certain goals (Rismayanti et al., 2023). With high intrinsic motivation in each student, it is hoped that maximum learning outcomes will be achieved. The learning process requires a deep understanding of motivation. This is based on the importance of encouraging students to actively collaborate during learning activities and maintaining their continuous involvement in the process (Nitti et al., 2024).

The Discovery Learning Model is a learning model that actively involves students to achieve optimal learning outcomes. This model encourages students to actively participate in the learning process and explore their own world (Saepumilah et al., 2024). The discovery learning model consists of six stages. First, stimulation is provided; second, problems are stated or identified; third, data is collected and processed; fourth, evidence is gathered; and fifth, conclusions or generalizations are drawn. Students will be motivated and very interested in learning with this discovery learning model (Istyadji et al., 2022). States that this discovery learning model allows students to discover something through their own learning process, which can increase student motivation and learning outcomes (Cahyaningsih & Karunia Assidik, 2021). The Discovery Learning model has several advantages that can support the learning process. One of the advantages of this model is that it allows students to direct their own learning process by engaging their cognitive abilities and motivation (Mukaramah et al., 2020).

The characteristics of learners in the 21st century require innovative and engaging learning media. The application of learning media that suits the needs of students can help the learning process. Digital-based game learning media is one of the media that can be used by teachers. According to Andang Ismail in his book Education Games, educational games are very enjoyable activities that can be used as educational methods or tools (Syahbani et al., 2024). One of the characteristics of games that can be used in education is (1) adjustment challenges and complex challenges, and (2) interesting and exciting, with students actively involved in activities related to the competencies to be achieved (Putri et al., 2023).

Educational games like *Gimkit* not only present lesson material in the form of competitive quizzes but also integrate gamification elements that can enhance student engagement and learning motivation. The integration of the *Discovery Learning* model and educational game media like Gimkit forms a strategic combination in addressing the issue of low student learning motivation. Gimkit can support students in maintaining their motivation and engaging more fully in class (Muchuweni. & Zingiswa., 2026). Gimkit is regarded as an entertaining evaluation tool that increases student desire to study and enhances their reading abilities (Putra Rizal., W.P et al., 2025). This strategy not only activates the role of students in the process of seeking knowledge, but also presents a dynamic, competitive, and meaningful learning atmosphere. By utilizing media that is familiar and liked by students, this approach is considered to be able to increase learning motivation compared to conventional methods that only focus on lectures or reading textbooks. When students' learning motivation increases, they will show a more persistent and enthusiastic attitude towards learning, as well as higher concentration and independence in learning (Manullang, 2024). For learning to run well, both teachers and students must be motivated. This communication begins with the interaction between teachers and students. Therefore, the teaching and learning process that is implemented must be designed to be as enjoyable as possible so that students enjoy the lessons (Handita et al., 2022).

Students who are motivated will engage in educational activities more fully. Learning activities won't happen if students aren't motivated (Istna et al., 2022). Students are more motivated to learn when they are joyful because they are inspired to study with zeal (Husniah, 2025). An agreement has been reached in Indonesia regarding the use of additional terms for social studies. This shows the characteristics of integrated social sciences, also known as social sciences. The main characteristic of social studies is the integration of human life in various dimensions of space and time with all its activities. In other words, social studies is a study related to social life and its environment for the purposes of education and the formation of social actors (Aryani et al., 2023). In addition, children are trained to think critically, argue, and collaborate through social studies learning. They are also taught to respect different perspectives, appreciate diversity, and understand the impact of social policie (Syahbani et al., 2024). Teachers are also responsible for their students' learning outcomes. The success of social studies learning also depends on the teacher's ability to understand the material and choose a learning model that is appropriate for the material taught in the social studies learning process (Suryadi, 2021).

Research by Aini and Rulviana shows that the use of technology-based media such as Wordwall not only helps to make the delivery of material more interesting, but also encourages active student involvement in social studies learning. These findings support the idea that interactively designed learning media can increase student attention and retention of subject matter, with the results in cycle III obtaining data on a completion rate of 100% with an average score of 82 compared to cycle I with a mastery percentage of 50% and an average score of 65. However, this study focuses more on the use of media as a tool rather than as part of a specific pedagogical approach. Therefore, in the framework of literature synthesis, media-based approaches need to be more deeply linked to learning models that encourage active student participation conceptually (Nabilah et al., 2023).

Then, three other studies by Satriawan, Sari, and Fildzah focused on the discovery learning model as the main pedagogical strategy in building student motivation. Satriawan et al.'s study emphasized the importance of active student involvement in the process of discovering concepts through exploratory stages. This is in line with constructivist theory, which states that students learn more effectively when they discover and construct knowledge independently. The findings from this study underline the role of teachers as facilitators in creating a learning environment that supports curiosity and self- reflection (Satriawan et al., 2023). Furthermore, Sari (2023) developed a discovery learning approach by integrating the Make a Match method based on educational games. This combination reflects an effort to synthesize two approaches, namely cognitive exploration through discovery and collaborative learning through games. This shows a tendency to activate not only the cognitive aspects but also the affective and social aspects of students in the learning process. This research is also supported by Fildza's research findings, which state that the application of the discovery learning model supported by card-based worksheets has been proven to improve understanding of social studies concepts. The average percentage of the six concept comprehension indicators, which was originally 53%, increased to 63%. An increase was also seen in the average learning scores of students, from 60.12 in cycle I to 70 in cycle II. In addition, the number of students who obtained scores in the very high category (81–100) increased from 6 to 11, and there were no longer any students who obtained scores in the low or very low categories (Aptanta et al., 2024). This study broadens the understanding that the effectiveness of learning is not only determined by the model alone, but also by complementary strategies that are appropriate to the characteristics of students and learning objectives (N & Rahman, 2025).

The usefulness of digital media in social studies instruction has been shown in a number of earlier research. For instance, Aini and Rulviana's research showed that using interactive platforms can greatly enhance learning outcomes. Similarly, research by Sari (2023) and Satriawan et al. shows that the Discovery Learning paradigm is successful in encouraging students' exploratory participation. However, there is a basic difference in focus: Satriawan et al.'s research concentrates more on the cognitive stages of the Discovery Learning model without fully integrating them with competitive gamification components, whereas Aini's work highlights the role of media as a visual aid. This paradox begs the question of how educational games like Gimkit and the pedagogical framework of Discovery Learning might complement one another. This contradiction raises the question of how the synergy between the pedagogical structure of Discovery Learning and the dynamics of educational games like Gimkit can work simultaneously to enhance students' intrinsic motivation.

The research gap in this study stems from the limited literature examining the integration of the discovery learning model with gamification media in social studies subjects at the secondary school level, particularly in addressing the issue of student apathy in classrooms where students tend to be passive. Most previous studies have applied game-based media as ice-breaking activities, rather than as an integral part of the data collection and processing phases within the Discovery Learning framework. Findings at SMP Negeri 3 Surabaya indicate that low learning motivation (60%) is not solely due to limited media resources but also stems from a lack of connection between the curriculum and students' socio-cultural realities. Therefore, an approach is needed that is not merely technical-digital but also pedagogically responsive.

This study presents an innovation through the integration of three main pillars: the Discovery Learning model, the Gimkit platform, and the Culturally Responsive Teaching (CRT) approach. The uniqueness of this article lies in the modified use of Gimkit, which is not merely employed as a group quiz but is individually adapted based on students' ability levels (Teaching at the Right Level) to ensure inclusive motivation. Unlike previous studies, this research attempts to analyze how elements of Surabaya's local culture are integrated into digital challenges to create a more personal and profound learning experience for students.

The urgency of implementing this approach is even stronger because teachers, as facilitators, need to create learning experiences that are adaptive to students' needs and interests. If this approach is ignored, social studies learning will continue to be considered a boring and difficult subject to understand. Observations in class VIII at SMP Negeri 3 Surabaya still show that students' motivation to learn, especially in social studies, is still relatively low. Students tend to be passive, easily bored, and uninterested in conventional teaching methods. The issue of low learning motivation is a major concern because it directly affects student engagement and learning outcomes. If not addressed immediately, this condition can hinder the development of students' potential, especially in mastering social studies material that requires conceptual understanding and critical thinking skills. Therefore, an alternative learning approach is needed that can facilitate active student engagement and create a pleasant learning atmosphere. In this context, this research is relevant because it offers a contextual and easy-to-apply solution for the classroom. In addition, this classroom action research is novel in terms of its combination of methods and media, as there have not been many previous studies that specifically examine the application of Discovery Learning combined with educational games, such as Gimkit, in social studies learning at the junior high school level.

Thus, through the application of the Discovery Learning model combined with educational game media, such as Gimkit, it is hoped that this approach will be able to overcome low student learning motivation. This approach not only emphasizes student activity and exploration but also utilizes digital technology as a bridge to create enjoyable and meaningful learning. Therefore, the application of discovery learning as an effort to increase student learning motivation through the use of educational games in social studies learning is a relevant and potential approach to create a meaningful and interesting learning experience, capable of developing thinking and attitude skills, and an effort to increase student learning motivation.

Method

This research uses a Classroom Action Research (CAR) approach based on the spiral model from Kemmis and McTaggart, which emphasizes the stages of planning, implementation of action, observation, and reflection in each cycle . The research was conducted in two cycles, each of which aimed to improve and increase student learning motivation through the application of an innovative learning model based on *discovery learning* combined with educational games. The types of data collected in this study included qualitative and quantitative data. Qualitative data were obtained through interviews and observations of student engagement during the learning process. Meanwhile, quantitative data were obtained through a student learning motivation questionnaire, which consisted of 25 questions with a 5-point Likert scale, namely always, often, sometimes, almost never, and never, to determine the respondents' statements. The combination of qualitative and quantitative data was chosen to provide a more comprehensive understanding of changes in student learning motivation, as suggested by Creswell (2023) in their study on mixed research methods.

The subjects of this study were students of class VIII B at SMP Negeri 3 Surabaya in the 2024/2025 academic year. The selection of this class was based on the results of the pre-cycle questionnaire analysis, which reinforced this finding, showing that the percentage of learning motivation of students in class VIII B only reached 60%, which was lower than the average of other classes at the same level. There were 30 students in class VIII B, consisting of 12 male students and 18 female students.

Data collection was conducted through interviews, observations, and questionnaires. The data analysis technique in this study involved processing the questionnaire results by calculating the percentage of student learning motivation in each cycle. The analysis was carried out by comparing the results of the pre-cycle, cycle 1, and cycle 2 to determine the improvement that occurred. Qualitative data from observations and interviews were analyzed using descriptive analysis techniques to enrich the interpretation of quantitative results. This analysis technique refers to the approach, which emphasizes the importance of integrating qualitative and quantitative data in order to gain a deeper understanding of educational phenomena.

Through this research design, it is hoped that a complete picture of the learning strategies applied to increase student motivation in social studies can be obtained.

Table 1. Overview of PTK Activities

Main	Main Activities
Pre-Cycle	Conducting a learning motivation questionnaire, initial condition observation, and interviews
Cycle	Implement learning using the first material, observation, questionnaire administration, and initial reflection.
Cycle 2	Improving learning with the second material, observation, administering follow-up questionnaires, and final reflection.
Data Processing	Analysis of questionnaires, observations, and interviews using quantitative and qualitative descriptive techniques to determine the percentage change in learning motivation.
Results	Identify changes in student learning motivation percentages from each stage until the specified target is achieved.

To analyze the questionnaire data, the researcher used a percentage formula that measures the extent of change in student motivation in the learning that has been carried out. This formula calculates the percentage of students who experienced an increase in learning motivation as follows:

$$P = \left(\frac{S}{T}\right) \times 100$$

Explanation:

- P = Percentage of students who showed an increase in learning motivation
- S = Total student achievement
- T = Total number of student achievement scores in one class

Establishment of success criteria to measure the level of learning success in increasing student motivation. These criteria refer to a minimum change of 20% in student learning motivation after each cycle. The determination of a 20% success criterion is based on a literature review showing that a 20% increase is a significant enough change to be considered a positive impact of intervention in learning. In addition, the researchers also used the categorization of student learning motivation as a reference in analyzing the data obtained from the questionnaire instrument. This category aims to facilitate the interpretation of the level of student learning motivation during the learning process. The range of values and categories are as follows (M et al., 2024):

Table 2. Learning Motivation Categories

Value (%)	Category
85 - 100	Very good
69 - 84	Good
56 - 68	Fair
20 - 36	Very Low

In this context, a 20% increase is considered an indicator that the method applied in this case, discovery learning combined with educational games, has contributed significantly to increasing student learning motivation. In addition to calculating the percentage increase in motivation, the researcher also calculated the average learning motivation score for each student indicator using the following formula:

$$\text{Nilai Rata-rata} = \frac{\sum X}{N}$$

Explanation:

- ∑Xsum = Total score obtained by all students on the questionnaire
- N = Number of students

The use of 20% as an indicator of success in this study is also in line with the theory proposed by (Deci & Ryan, 2008) regarding intrinsic motivation.

Results and Discussion

This increase in learning motivation reinforces the view of Self-Determination Theory proposed by (Deci & Ryan, 2008), that students' intrinsic motivation will develop if they feel they have interest, competence, and relevance in learning activities. The use of Gamkit provides a meaningful learning experience through interactive games that allow students to choose and solve problems independently, thereby fostering a sense of competence and learning satisfaction. The discovery learning model has proven effective in encouraging students to discover learning concepts on their own through exploration, analysis, and reflection activities. According to (L et al., 2022), discovery-based learning encourages deeper cognitive engagement because students actively construct their own understanding. In this study, the discovery learning syntax used includes providing stimuli, identifying problems, collecting data, processing data, proving, and drawing conclusions, all of which support active student participation.

These findings are also in line with constructivist theory, which emphasizes that effective learning occurs when students are actively involved in constructing their own knowledge. Constructivist theory is a theory that focuses on students actively forming their understanding of what they have learned by gathering information and interpreting and connecting it with their previous experiences (Suryana et al., 2022). Melalui model discovery learning dapat memberikan kesempatan siswa untuk belajar secara mandiri, menghadapi tantangan sesuai kemampuan dan berinteraksi dengan lingkungan belajar. Teori konstruktivistik berpusat pada siswa untuk membentuk pemahaman dan pengetahuannya melalui pengelaman belajar. Sehingga, siswa ketika pembelajaran tidak hanya mendengarkan penjelasan dari guru. Tetapi, siswa aktif mengeksplorasi materi pembelajaran yang belum dipahami dengan menanyakan kepada guru. Adanya rasa keingintahuan siswa menunjukkan bahwa motivasi belajar siswa lebih tinggi. Proses pembelajaran ini dapat memperkuat pemahaman siswa karena siswa terlibat langsung dalam membangun pengetahuannya. Selain itu, adanya interaksi dengan guru dan teman sebaya sangat berperan penting untuk mendukung belajar yang membantu siswa dalam mencapai pemahamannya.

The Culturally Responsive Teaching (CRT) and Teaching at the Right Level (TaRL) approaches in cycle 2 are also important factors in creating adaptive learning that is relevant to the students' context. Teachers differentiate tasks using Gimkit individually based on the results of diagnostic assessments, so that students can learn according to their respective abilities. This strategy reinforces the view that learning tailored to the individual needs of students will be more effective in increasing motivation. The availability of learning resources (Gimkit) is not the only factor that determines success in learning activities; learning tactics must also be tailored to the needs of the students. Additionally, especially for children with weaker academic talents, the teacher's role in learning activities is critical. Thus, a crucial element in guaranteeing the effective application of these tactics is the teacher's role in offering direction, assistance, and varied instruction.

The application of the discovery learning model is an effective learning model that can make learning activities enjoyable for students. In addition, using this learning model requires active student participation. The application of the discovery learning model will make learning student-centered. The discovery learning model using educational games (gimkit) can increase student motivation in learning activities. This can be demonstrated by the percentage increase from cycle 1 to cycle 2. This is in line with the research conducted by (Satriawan et al., 2023) that the selection of the discovery learning model shows good progress in student learning motivation. The use of educational games can influence student learning motivation.

The application of the discovery learning paradigm is quite successful, according to research by Satriawan et al. (2023). The Satriawan et al. (2023) study employed the discovery learning paradigm in conjunction with actual items to facilitate students' comprehension of the subject matter. This method also increases pupils' motivation and piques their interest in learning. Without including educational games into learning activities, Satriawan et al. (2023) study concentrated on cognitive growth. Cici et al. (2023), who employed the discovery learning model without incorporating instructional games into learning activities, are likewise in line with this study. According to research by Aryani et al. (2023), students can become more engaged in the classroom by using the discovery learning model to increase learning motivation through experiments and observations. Pupils are encouraged to voice their thoughts and are taught to think for themselves. According to a study by Cici et al. (2023), students would seem less engaged and passive if learning activities only center on the teacher. As a result, using the discovery learning approach in educational activities is successful.

This study's differences from those of Satriawan et al. (2023) and Cici et al. (2023) show that the discovery learning model can support students' independent learning, encourage curiosity, and turn them into active learners. In addition to using the CRT approach, which makes it easier for students to understand the material because the learning activities are connected to the students' culture and everyday lives, this study used differentiation to ensure that the material provided matched students' abilities. Overall, this study confirms the conclusions of the study (Satriawan et al., 2023), which claims that students' interest and engagement in the learning process can be increased when discovery learning is coupled with interactive media like educational games. In this situation, Gimkit functions not just as a teaching tool but also as a crucial component of pedagogical approaches that encourage engaging, inquisitive, and joyful learning. The learning model is not the only factor that contributes to increased learning motivation; the media utilized and the teacher's preparedness for learning activities also play a role. This is consistent with the research that has been done, which shows that the discovery learning approach encourages students to actively seek out new information and solve issues. As a result, when pupils solve problems, they are taught to think critically.

1. Pre-Cycle

During the Social Studies (IPS) learning process in class VIII of SMP Negeri 3 Surabaya, the researcher found a rather striking problem, especially in class VIII B. Initial observations showed that most students in class VIII B lacked enthusiasm for learning. Students tended to be apathetic, minimally participatory, and less actively involved in the teaching and learning process. Some students appeared passive, lacked initiative in asking questions, and showed little interest in the material presented.

Recognizing this condition, the researcher then explored the issue further by interviewing Mrs. Soesanti, the social studies teacher in that class. From the interview, it was found that the problem of low learning motivation in class VIII B had been going on for quite some time. The teacher also emphasized that class VIII B students did indeed tend to have low learning motivation, especially in social studies.

To reinforce the findings in the field, the researcher distributed a questionnaire using Google Forms. The questionnaire was designed based on a 5-point Likert scale to measure indicators of learning motivation, such as the desire and will to succeed, perseverance and need to learn, hopes and dreams for the future, appreciation of learning, interesting learning activities, and a conducive learning environment. The results of the questionnaire processing showed that class VIII B had a low learning motivation score with an average learning motivation percentage of 60%. The following are the results of student learning motivation data in the pre- cycle:

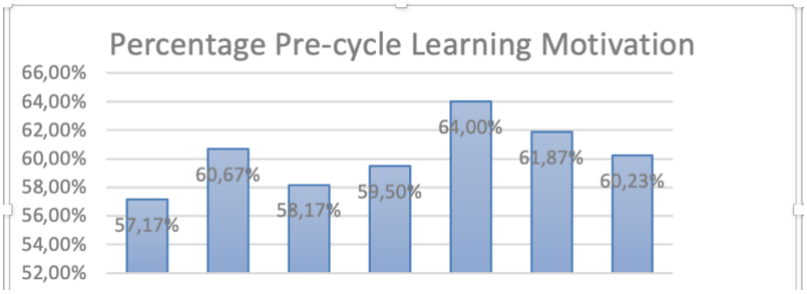


Figure 1. Percentage of Pre-Cycle Learning Motivation

2. Cycle 1

a. Planning

In the planning stage of the first cycle, the researcher began by designing learning tools in the form of teaching modules aimed at increasing student learning motivation. Based on the findings in the pre-cycle stage, the researcher created a learning module by choosing a more interactive and participatory learning model, namely discovery learning with a Culturally Responsive Teaching (CRT) approach. The material chosen for the first cycle was "Social Mobility," which was considered relevant to the students' daily lives and could trigger their curiosity.

In addition, in this planning, adjustments were also made to the evaluation tool in the form of a questionnaire that was used previously and will be given again after cycle 1 to measure the increase in learning motivation. Furthermore, observation techniques were also designed to see the extent of student achievement in group activities and discussions during the learning process and to serve as a reference for reflection in the next stage.

b. Implementation

In the implementation stage of Cycle 1, the learning process was carried out for three lessons (3 x 40 minutes) in one meeting. The learning was designed using the CRT approach, which integrates culture into learning activities. In the implementation, the teacher was tasked with delivering the learning material in accordance with the syntax of the discovery learning model, such as providing stimuli, identifying problems, collecting data, processing data, proving, and drawing conclusions.

Learning in Cycle 1 was also combined with interactive media in the form of a game *kit* designed for competition between groups to obtain the maximum score on the material "Social Mobility." This media contained learning material components, case studies of population dynamics in Surabaya, with the same multiple-choice questions and game instructions that encouraged students to be actively involved in exploring concepts in groups. From the beginning of the activity, the teacher builds student engagement through provocative questions and perceptions that relate the material to students' daily lives. The learning objectives are explained explicitly, and students are introduced to how to use Gimkit as a learning tool by integrating culture.

The activity began with the division of heterogeneous groups, then students played games in groups as their learning medium. This process took place with guidance from the teacher, who acted as a facilitator, going around to each group to provide support as needed. During the discussion, students showed higher enthusiasm compared to the pre-cycle condition. The classroom atmosphere became more lively and dynamic, with natural interactions between group members. Students actively expressed their opinions, asked questions, and contributed ideas in the learning process.

Next, the teacher gave appreciation to the group that achieved the highest score, and the teacher evaluated and reflected with the students by providing simple explanations of the unresolved questions and reflecting on the material that had been taught. The learning activity was closed by asking students about their experiences during the learning process, the challenges they faced, and the new things they learned that made the learning interesting and meaningful.

A setback in Cycle 1 occurred as a result of inadequate preparation for teaching students how to use the Gimkit, which left them perplexed during the activity. Some pupils remained inactive during the session since the teacher continued to focus on particular kids. Additionally, students with lesser abilities had difficulty understanding the subject in Cycle 1 due to the lack of differentiation in the instructional materials. As a result, a differentiated approach based on students' skills was used in Cycle 2 to address the problems from Cycle 1.

Overall, the implementation stages in Cycle 1 showed positive changes in classroom dynamics. The application of the discovery learning model based on the CRT approach with the help of the Gimkit media proved to be able to stimulate student engagement in the learning process. This strategy also provided space for all students, regardless of their ability level, to actively participate and feel that they contributed to the learning activities. These findings will be further strengthened through analysis of the observation results and reflections in the next stage.

c. Observing

During the observation stage of Cycle 1, the researcher and partner teachers actively recorded the dynamics of the learning process, particularly in terms of student participation, group involvement, and responses to the use of Gimkit media and the CRT learning approach. Observation data were collected using a pre-designed observation sheet, which included indicators of learning motivation such as desire and willingness to succeed, perseverance and need to learn, hopes and aspirations for the future, appreciation of learning, interesting learning activities, and a conducive learning environment. In addition, the researcher also recorded several field notes that described the classroom situation qualitatively.

The results of the observation show a significant improvement compared to the pre- cycle conditions. Students who were previously passive began to participate more actively, especially during group discussions. The learning media in the form of gamification became one of the triggering factors that attracted students' attention due to its interactive and challenging nature. The model teacher also distributed a learning questionnaire via Google Forms to determine learning motivation in cycle 1. The following are the questionnaire results for cycle 1:

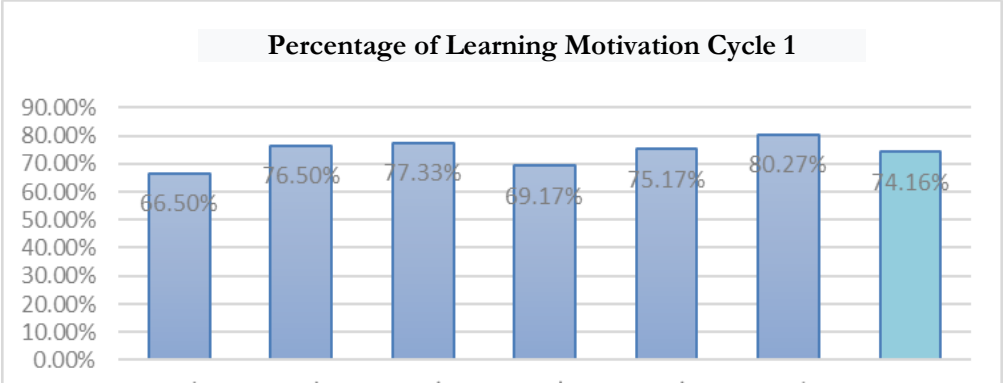


Figure 2. Percentage of Learning Motivation Cycle 1

Learning motivation was found to be 66.50% for Indicator 1 (desire and willingness to succeed), 76.50% for Indicator 2 (motivation and need to learn), 77.33% for Indicator 3 (hopes and future aspirations), 69.17% for Indicator 4 (the presence of recognition in learning), 75.17% for Indicator 5 (the presence of engaging activities in learning), and 80.27% for Indicator 6 (the presence of a conducive learning environment). For these six variables, the average learning motivation percentage in Cycle 1 is 74.16%. As a result, learning motivation increased by 14% between the pre-cycle and Cycle 1.

d. Reflection

Based on the learning activities carried out in cycle 1, the results of the reflection conducted with the partner teacher after the learning session showed that there were still several things that needed to be improved. Some students still showed confusion in understanding the concepts discussed, and there were still some students who tended to be passive. In addition, the time provided for group discussion activities was still not optimal to cover all stages of the game thoroughly. The teacher also noted that the habit of using new learning media still required more structured guidance so that students would not only focus on the game aspect but also explore the substance of the material presented.

Based on these reflections, it was concluded that the actions implemented in Cycle 1 had shown positive developments in student learning motivation, but were still not fully optimal. Therefore, for the implementation of Cycle 2, several improvements need to be made, including refining the instructions for using the game kit, setting a more proportional time for the " " so that all groups can complete the activity thoroughly, replacing the teaching material to better understand student involvement, and addressing the fact that there are still some students who are passive in learning. Thus, it is hoped that the increase in student learning motivation can be more evenly distributed and sustainable in the next cycle.

The teacher's responsibilities as a creator, implementer, and assessor of educational activities are examples of external forces. If a teacher is adept at managing the classroom, presenting material, choosing effective teaching methods, and utilizing instructional media that meets the requirements of the students, learning can be successful. Insufficient scaffolding during the learning process

might make it difficult for students to comprehend the subject matter. Learning achievement may be influenced by teachers' ability to handle technology like Gimkit, manage time, and deliver curriculum. Additionally, because they participate actively in learning activities rather than just receiving information, students play an important role.

When it comes to creating knowledge, contributing to conversations, and taking ownership of their education, students behave as autonomous learners. Some students still could not get the idea of using the media (Gimkit) in this first cycle, which could have an impact on the allotted time. Additionally, ineffective classroom management made students pay less attention to the taught topic and more attention to the game.

3. Cycle 2

a. Planning

The planning stage in Cycle 2 was carried out based on the evaluation and reflection of the implementation of actions in Cycle 1. The evaluation showed that the use of the CRT approach and gamification media in groups had succeeded in increasing student participation and enthusiasm for learning. However, there were still several obstacles, particularly the involvement of some students who tended to be passive in the group and the students' focus, which was still predominantly on the game aspect rather than the substance of the material. Therefore, in Cycle 2, improvements to the learning strategy were designed by applying the Teaching at the Right Level (TaRL) and Culturally Responsive Teaching (CRT) approaches and modifying the use of gamification media to be individual-based.

The researchers also replaced the learning material in Cycle 2 with "Cultural Interaction during the Islamic Kingdom Period." This material was chosen based on its contextual relevance, which allowed students to reflect on their cultural experiences and values in their daily lives, in accordance with the main principles of the CRT approach, and to better understand the level of student motivation when different material is presented. Through this approach, learning was designed to be more responsive to students' social and cultural backgrounds, thereby building more meaningful connections between the subject matter and their personal experiences.

In this plan, learning strategies are developed by facilitating individual learning activities using gamebooks that have been tailored to the needs of each student. Each student gets access to one educational game based on cultural reflection and social experiences that they are familiar with, allowing them to learn independently while still paying attention to the local context and uniqueness of each student's identity. The use of this media is designed to encourage personal exploration, develop self-confidence, and strengthen understanding of the material taught through a fun and meaningful process.

In accordance with the predetermined time allocation, the learning process is designed to last three lessons (3 JP) or 120 minutes, with a more proportional division of time between concept exploration, reinforcement through Gimkits, and reflection and discussion of learning outcomes. The researchers created new teaching modules by considering the strengthening of student engagement and the integration of measurable learning motivation indicators. Observation sheets, motivation questionnaire instruments, and field notes were prepared to collect learning data as part of the observation and reflection stages at the end of the cycle.

With a more contextual, individualized, and responsive planning design tailored to student needs, the actions in Cycle 2 are expected to have a more significant impact on enhancing student learning motivation, particularly in terms of learning independence, material relevance, and active personal participation in the social studies learning process.

b. Implementation

The implementation of actions in Cycle 2 was carried out after the plan was systematically prepared, taking into account the results of the reflection in the previous cycle. At this stage, learning was conducted in three lesson hours (3 LH) or for 120 minutes. The material studied by students was "Cultural Interaction during the Islamic Kingdom," which was contextually very close to their daily lives, such as the city of Surabaya as one of the centers for the spread of Islam in East Java. This was in line with the main principle of Culturally Responsive Teaching, which emphasizes learning based on students' cultural backgrounds and experiences.

The learning process began with an apperception that linked students' experiences with social phenomena around them, such as the true story of the growth of Islam in Surabaya by Sunan Ampel. This technique aimed to foster a sense of belonging and awareness that the material being studied was not abstract but highly relevant to their lives.

Next, the teacher divides the group based on a diagnostic assessment that was previously given after the implementation of Cycle 1 based on high, low, and middle abilities. Then the teacher distributes tasks through the Gimkit media, which is played individually and has been adjusted to the abilities of the students. In this stage, students independently complete challenges and questions in the Gimkit, which contain different scenarios according to the local context and cultural diversity they are familiar with.

During the learning process, the teacher acted as a facilitator who moved from one student to another to provide guidance, clarification, and emotional support. This individualized approach provided space for students to learn at a pace and in a manner that suited their individual preferences. Some students showed increased initiative and confidence in completing the game challenges, while others began to express their opinions during reflective discussion sessions.

After the learning activity was completed, the session was closed with individual reflection and class discussion to summarize the material. Students were asked to write down one thing they learned and one thing they wanted to change or improve in their lives after learning about the material. This activity aimed to strengthen the relationship between the subject matter and students' personal identities and values, a key principle in CRT that places learning as a process of self-transformation.

In general, the implementation of actions in Cycle 2 was more conducive and meaningful. Student activity increased, as evidenced by their full engagement during the use of the game kit, as well as the depth of reflection reflected in the students' writing and discussions. Personal involvement in learning enabled students to not only understand the material conceptually, but also to internalize the values and meaning of what they learned.

c. Observing

The observation and reflection stage in cycle 2 was conducted to evaluate the improvement in the application of the CRT and TaRL approaches with the help of individual gamification media in increasing the learning motivation of students in class VIII B of SMP Negeri 3 Surabaya. During the learning process, the researcher and collaborating teachers conducted observations using a student learning motivation observation sheet that included indicators of desire and willingness to succeed, perseverance and need to learn, hopes and future aspirations, appreciation of learning, interesting learning activities, and a conducive learning environment.

The observation results showed a significant increase in student engagement. Most students appeared enthusiastic about participating in the learning process, showed a high level of curiosity about the material, and actively completed each stage of the Gimkit media. Unlike the implementation in the previous cycle, in cycle 2, students were more independent, able to manage their time well, and complete their tasks thoroughly. Individual reflection activities at the end of the learning process also showed a deeper level of understanding, where students were able to relate the concept of the spread of Islam in Java by Sunan Ampel to their personal experiences and social phenomena in their surroundings.

Based on the questionnaire distributed by the teacher to the students, the following percentages can be determined:

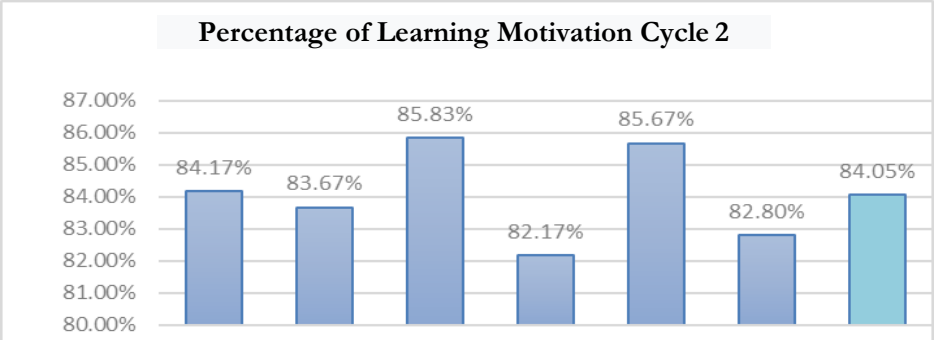


Figure 3. Percentage of Learning Motivation Cycle 2

Based on the questionnaire results, it can be seen that learning motivation in indicator 1 (desire and willingness to succeed) was 84.17%, indicator 2 (motivation and need to learn) was 83.67%, indicator 3 (hopes and dreams for the future) was 85.83%, indicator 4 (the existence of rewards in learning) with a percentage of 82.17%, indicator 5 (the existence of interesting activities in learning) with a percentage of 85.67%, and indicator 6 (the existence of a conducive learning environment) with a percentage of 82.80%. Thus, the average percentage of learning motivation in cycle 1 from the six indicators was 84.05%. Therefore, there was a 10% increase in learning motivation from cycle 1 to cycle 2.

In addition to direct observation, reflection was also carried out through analysis of the learning motivation questionnaire results that were distributed again after cycle 2. The average learning motivation score of students increased overall compared to cycle 1 and pre- cycle. Based on the calculations, the percentage of student learning motivation reached 84%, which indicates that it has exceeded the success criteria of ≥75%. Qualitatively, teachers also responded positively to changes in students' learning attitudes, especially in terms of initiative, confidence, and openness to social studies material.

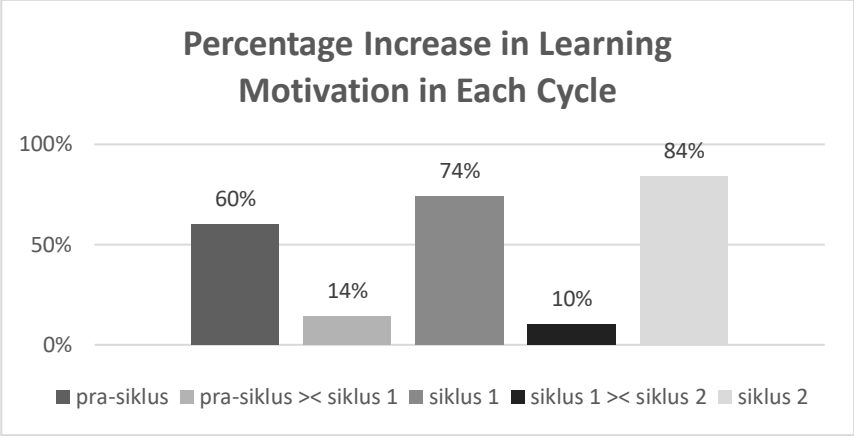


Figure 4. Percentage Increase in Learning Motivation in Each Cycle

Based on the results of the questionnaire filled out by students, it can be seen that there was an increase in learning motivation. In the pre-cycle, the percentage of learning motivation was 60%, and in cycle 1, the percentage was 74%. Thus, the increase in learning motivation from the pre-cycle to cycle 1 was 14%, and in cycle 2, the learning motivation questionnaire results were 84%. The increase in learning motivation from cycle 1 to cycle 2 was 10%. There was a significant increase in learning motivation from the pre-cycle to cycle 2, which was 24%.

Based on the results of these observations and reflections, it can be concluded that the application of learning with the CRT and TaRL approaches, which are adapted to the cultural context and experiences of students, as well as the use of individual gamification media, has succeeded in creating more meaningful learning and encouraging an increase in learning motivation. This success also indicates that the actions taken in cycle 2 fall into the very good category, so that no further action is needed in the next cycle. With the achievement of the predetermined success indicators, this classroom action research can be declared successful in increasing the learning motivation of students in class VIII B.

Conclusion

Based on the results of the classroom action research conducted over these two cycles, it can be concluded that the implementation of the discovery learning model with the aid of Gimkit effectively increased the learning motivation of 8th-grade students at SMP Negeri 3 Surabaya in the Social Studies subject. The implementation of the discovery learning model with the aid of Gimkit significantly increased student motivation and engagement in learning activities. The increase in learning motivation is evident from the progressive improvement across cycles: from 60% in the pre-cycle, to 74% in cycle 1, and finally to 84% in cycle 2. The increase from cycle 1 to cycle 2 was 10%, while the overall increase from the pre-cycle to cycle 2 reached 24%. These research findings support the broader literature indicating that discovery-based and game-based pedagogies significantly enhance student motivation.

This study has several limitations, namely: First, the study was conducted in a classroom (VIII B) at SMPN 3 Surabaya, which limits the generalizability of the findings to other educational contexts. Second, the relatively short duration of the intervention (two cycles) did not allow for an assessment of the long-term effects of discovery learning using the Gimkit approach on student motivation. Third, although this study focused on quantitative measures of motivation, qualitative aspects such as students' emotional engagement and attitudes toward the learning process were not explored in depth. Fourth, the absence of a control group means that causal conclusions regarding the intervention's effectiveness must be drawn with caution.

Future researchers should consider expanding the sample size and including multiple schools or classes to enhance the generalizability of the findings. A longitudinal research design is needed to test whether the observed increase in motivation is sustained over the long term. Additionally, future research should employ a mixed-methods approach to gain a deeper qualitative understanding of student engagement and motivation. Comparative studies involving a control group would also help establish a causal relationship between the intervention and increased motivation. Finally, researchers should explore the integration of discovery-based learning with other new educational technologies, such as AI-based stimuli, which have recently been shown to significantly boost motivation.

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