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A REFLECTIVE STUDY ON THE IMPLEMENTATION OF EDUCATIONAL GAMES AMONG FIRST GRADE STUDENTS AT DHARMA KARYA UT ELEMENTARY SCHOOL

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ABSTRACT

Conventional teaching at the elementary school level often faces challenges in the form of low student motivation and readiness to learn. This study aims to describe the implementation of strategies using educational games in Class 1.1 at SD Dharma Karya UT, identify the operational challenges faced by teachers and students, and formulate an action plan for improvement based on the results of reflection. The research method used was qualitative, employing a case study approach based on the Gibbs reflection cycle model. Data were collected through participant observation of student activities, semi structured interviews with teachers, and a review of documentation, including lesson plans and photographs of activities. The data analysis techniques applied were content analysis and qualitative descriptive analysis, with data validity tested through triangulation of methods to verify the reflective findings. The results of the study indicate that the implementation of educational games is capable of creating an enjoyable learning environment and significantly increasing student engagement. Nevertheless, teachers face a major operational challenge related to time management in the classroom to ensure that the curriculum schedule is not disrupted. In conclusion, this reflective study successfully evaluated teaching performance independently and formulated an action plan to improve the standards and effectiveness of face to face instruction in the future.

Keywords: Educational Games, Gibbs' Cycle, Learning Motivation, Reflective Study.

A. Introduction

Learning in the early elementary grades, particularly first grade, serves as a crucial foundation that requires a student centered approach to ensure active student engagement. The transition from kindergarten to elementary school necessitates the creation of a fun learning environment to enhance students' intrinsic motivation and conceptual understanding. At Dharma Karya UT Elementary School, there are four learning groups for this grade level, namely grades 1.1 through 1.4. However, this study specifically focuses on the students in Grade 1.1 as the subjects of the reflective study. The

selection of Class 1.1 was based on the fact that the researcher spent most of their daily time in that classroom interacting with the students. Additionally, the researcher's mentor teacher served as the homeroom teacher for Class 1.1, enabling the researcher to actively participate in various daily instructional activities and conduct more in depth participant observation of students' learning dynamics compared to other classes.

In reality, the learning process often faces obstacles related to students' readiness to learn in the classroom. There are indications that students' low motivation and poor understanding of the subject matter are closely linked to the use of conventional teaching methods, which tend to be monotonous and fail to optimally engage students. If these operational challenges are left unaddressed without innovation, the quality of students' basic learning outcomes will not be optimal.

One solution deemed relevant to address this issue is the implementation of strategies through educational games. Game based learning has been proven to increase student interest and facilitate differentiated instruction tailored to each individual's learning style. Based on Vygotsky's sociocultural theory, social interaction in the formation of children's cognition can be optimized through the concept of the Zone of Proximal Development (ZPD) and the provision of appropriate scaffolding. Through engaging game activities, students' intrinsic motivation can be naturally stimulated because entertainment elements are combined with clear learning objectives.

Although previous research has extensively discussed the effectiveness of technology based learning or the flipped classroom, very few studies have used in depth reflective studies to evaluate the implementation of playbased learning specifically in lower elementary grades at a specific location such as SD Dharma Karya UT. This research is warranted because a reflective approach enables teachers, as practitioners, to conduct ongoing self evaluations of their performance in order to improve standards and the quality of face to face instruction. Reflective strategies help teachers identify what works and what needs improvement so that the teachinglearning process is not only "functional" but also meaningful.

Based on this background, this study focuses on an in depth evaluation of teaching practices in lower grade classrooms. The research questions for this study are as follows:

1) How are educational games implemented with first grade students at Dharma Karya UT Elementary School?

2) What operational challenges arose during the implementation of these educational games?

3) What are the teachers' improvement action plans after reflecting on the teaching process?

In line with these research questions, the objectives of this study are to describe the implementation of educational games, identify the challenges faced by both teachers and students, and formulate concrete improvement action plans based on the results of reflection. It is hoped that this study will provide practical guidance for teachers regarding innovative learning models and serve as strategic input for schools in enhancing the effectiveness of instruction. The limitation of this study lies in its narrow scope, which focuses on first grade students at Dharma Karya UT Elementary School. Consequently, the findings are contextual and aimed at improving the operational quality of local learning through the Gibbs reflection model.

B. Research Method

This study employs a qualitative approach in the form of a case study. This approach was chosen because the research aims to conduct a systematic review of teachers' teaching experiences to connect theory with real world practice in the field, rather than merely passively describing cases.

Reflective analysis was conducted following the six stage Gibbs Reflection Cycle: Description, Feelings, Evaluation, Analysis, Conclusion, and Action Plan. Additionally, the study also drew upon John Dewey's elements of reflection, which consist of Suggestions, Problems, Hypotheses, Reasoning, and Testing. This procedure was used to ensure that the evaluation of teaching practices was conducted objectively based on empirical evidence and to minimize subjective assumptions.

The research subjects consisted of teachers as reflective practitioners and first grade students at Dharma Karya UT Elementary School.

Data Collection Techniques and Instruments:

1. Observation

Observation was used to directly observe students' activities and active engagement during the educational games.

2. Interview

Semi structured interviews with teachers using the Gibbs reflection guide were conducted to explore their perceptions and feelings regarding the pedagogical process in greater depth.

3. Documentation

Collecting physical evidence in the form of lesson plans, photos of activities, and student work as supporting data for analysis.

Data Analysis Techniques: This study applied inductive qualitative descriptive content analysis to interpret the interview results and field notes in depth. The data analysis steps were carried out systematically as follows:

- Data Transcription: The researcher transcribed the entire recorded interviews with the 1.1 class teacher verbatim into written text to ensure no reflective information was omitted
- Data Reduction: Raw data from field notes and transcripts were filtered to select relevant information.
- Data Presentation: The data were presented in the form of in depth descriptive narratives or tables to illustrate general patterns emerging from the observations and interviews.

The researcher interpreted the meaning of the categorized data to address the research question regarding the effectiveness of educational games and developed an action plan.

Data Validity Testing: To ensure the reliability and validity of the results of this reflective study, the researcher used triangulation and member checking. The detailed steps are as follows:

Triangulation Technique (Data Comparison): The researcher verified the accuracy of the data by comparing information obtained from three different data collection techniques:

Comparing the results of participant observations of students' actual behavior during play with the results of interviews with teachers regarding their opinions on student enthusiasm. Verifying field notes with documentary evidence, such as photos of activities and students' quiz results, to ensure the consistency of the findings.

Member Checking: Interview transcripts and preliminary analyses were returned to the first grade teachers for confirmation. This was

done to ensure that the researcher's interpretation of operational challenges and improvement plans aligned with the teachers' actual classroom experiences.

Collaborative Reflection: The researcher involves peers or mentor teachers to discuss the research findings in order to gain new perspectives and minimize the researcher's subjective bias in the reflection process.

C. Results and Discussion

Result

The implementation of educational games for students in Class 1.1 at Dharma Karya UT Elementary School significantly transformed classroom dynamics from a largely passive environment into an interactive and dynamic learning space. Key findings indicate that the integration of game based media effectively visualizes material previously considered abstract for lower grade students, thereby facilitating their conceptual understanding without causing them to feel overwhelmed.

Through this reflective study, it was found that students' active engagement increased sharply, particularly in group collaboration activities to solve game challenges. Unlike conventional teacher centered learning, this method provides space for students to learn independently and through peer interaction. Nevertheless, the reflection process identified crucial operational challenges, namely the management of quiz completion time which sometimes exceeded the curriculum schedule allocation and the need for stable school technology infrastructure to support the widespread use of digital media.

Discussion

1. Implementation of Educational Games for First Grade Students at SD Dharma Karya UT

The implementation of a strategy using educational games for first grade students at Dharma Karya UT Elementary School was carried out to transform conventional, often monotonous learning into a more interactive experience. This process was conducted through a Classroom Action Research (CAR) approach, following a cycle that included planning, implementation, observation, and reflection. Technically, teachers integrated game based media to help visualize abstract concepts, making

them easier for first grade students to understand.

In class activities involve the use of multimedia that combines visual and audio elements to capture students' attention. This implementation is not only individual based but also encourages group collaboration, where students work together to solve game challenges. Grounded in Vygotsky's Sociocultural Theory, teachers provide appropriate scaffolding to help students reach their Zone of Proximal Development (ZPD) through meaningful social interaction during gameplay.

2. Operational Challenges During the Implementation Process

Although Dharma Karya UT Elementary School holds an A accreditation and has adequate internet facilities, this study identified several tangible obstacles in the field. The main operational challenges include:

Limitations in Technology Infrastructure: Not all devices at the school support the large scale use of digital media, and technical obstacles such as slow device response or lag occasionally arise.

Time Management: Teachers often struggle to manage the duration of the games to ensure they align with the strict curriculum schedule, as using games sometimes takes more time than traditional lecture based methods.

Pedagogical Readiness: Teachers need time to adapt to mastering device operation while ensuring that game elements do not overshadow the primary instructional objectives.

Classroom Environment: Excessive student enthusiasm while playing has the potential to make the classroom atmosphere chaotic or less conducive to learning if not managed with firm rules from the start.

3. Improvement Action Plan Based on Reflection Findings

Through reflective study using the Gibbs model, involving Description, Feelings, Evaluation, Analysis, Conclusion, and Action Plan teachers have formulated several concrete improvement plans to enhance the quality of teaching in the future.

Development of Structured Guidelines: The teacher will develop more systematic game modules or guidelines to minimize preparation time and ensure that the focus on the material is maintained.

Diversifying Media: Utilizing a wider variety of games to accommodate various learning styles visual, auditory,

and kinesthetic to sustain long term learning motivation.

Strengthening Technology Competencies: Conducting independent or collaborative training to enhance technical skills in operating devices and evaluating learning outcomes through educational games.

Flipped Classroom Strategy: Consider a hybrid approach where students play educational games outside of class hours, allowing in class time to be focused on analyzing results and indepth discussions.

The key scientific finding of this study is the creation of a low anxiety learning environment. In the context of Class 1.1, the game based atmosphere allows students to view mistakes as part of the exploration process, rather than as permanent failures. This scientifically demonstrates the importance of applying teaching strategies that accommodate students' transition from kindergarten to elementary school through a childcentered approach.

The significance of these results lies in their ability to naturally foster 21st century skills (4Cs): Critical Thinking, Creativity, Collaboration, and Communication. The use of gamebased media in the classroom is not merely a form of entertainment but rather a tool for fostering critical thinking through problem solving within games, as well as strengthening communication and collaboration among students. From the perspective of Vygotsky's theory, game elements act as scaffolding that helps students reach their Zone of Proximal Development (ZPD) through meaningful social interaction.

When compared with previous studies, these findings are consistent with Setiarini et al. (2024) and Rambe et al. (2024), who reported that students' motivation and engagement increased through the use of educational games. However, there is a fundamental difference in focus: this study places greater emphasis on the operational aspects for practitioners through the Gibbs reflection model. While other researchers often focus solely on the general effectiveness of digital media, this study specifically reveals that the success of implementation heavily depends on teachers' pedagogical readiness to manage the duration of the games and control students' enthusiasm to ensure it remains aligned with the primary instructional objectives.

The results of this reflection provide a foundation for an improvement plan in the form of developing more structured game guidelines to minimize future technical obstacles. Thus, this study confirms that the "learning through play" strategy is a valid solution for improving the quality of basic education services at the specific location of SD Dharma Karya UT.

Table 1.
Comparison of Game Media Implementation Results with Previous Research

Indicator	Result of the Grade 1 Study Dharma Karya UT Elementary School	Findings from Other Studies
Learning Motivation	Increases through the visualization of abstract material	Increased (Ni Putu Diah Setiarini et al., 2024)
Student Activities	Primarily focused on collaboration and the development of the 4Cs	Increased interactivity (Ni Putu Diah Setiarini et al., 2024)
Key Challenges	Time management & technology infrastructure	Teacher readiness & access (Habibah, 2022)

Table 1 presents a comparison between the findings of the reflective study in Grade 1 at Dharma Karya UT Elementary School and the results of previous research on the effectiveness of using educational games in the learning process. The following is an indepth explanation of the points listed in the table:

1. Learning Motivation

Findings at Dharma Karya UT Elementary School: The implementation of educational games successfully boosted motivation by visualizing abstract material, making it more concrete and easier for lowergrade students to understand. This is crucial, given that the transition from kindergarten to elementary school requires a fun learning environment.

Comparison with Setiarini et al., 2024: These findings align with the research by Setiarini et al., which showed that the use of educational games significantly increased learning motivation, particularly in early reading skills, because students did not feel pressured while learning.

2. Student Activities

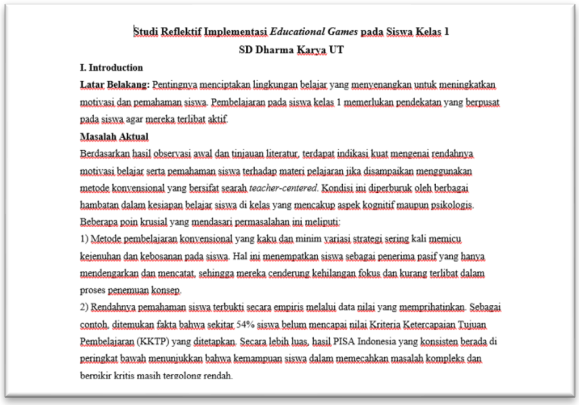
Findings at Dharma Karya UT Elementary School: Student activities in this classroom have become more dynamic, with a primary focus on group collaboration and the development of 4C skills (Critical Thinking, Creativity, Collaboration, Communication). Students have transformed from passive recipients of information into active explorers who build understanding through in game missions. Comparison with Setiarini et al., 2024: Previous research also noted an increase in interactive and effective activities. Game based media make the learning process more learnercentered, encouraging students to actively engage both physically and mentally in each session.

3. Key Challenges

Findings at Dharma Karya UT Elementary School: The obstacles encountered were primarily operational in nature, namely managing the duration of gameplay which often exceeded the time allocated in the curriculum and ensuring the stability of the school's technological infrastructure, including devices and the internet connection. Comparison with Habibah, 2022: Other studies highlight challenges related to teachers' pedagogical readiness and general accessibility to technology. This indicates that even though the school has good accreditation, the success of implementation heavily depends on

teachers' ability to efficiently integrate technology into lesson plans. Although there are similarities in terms of positive impacts on motivation and activity levels, the study at SD Dharma Karya UT offers specific insights into the importance of practitioner reflection to address time management and local infrastructure constraints, ensuring that educational game strategies remain aligned with the curriculum's instructional objectives.

Research Flowchart



Studi Reflektif Implementasi *Educational Games* pada Siswa Kelas 1 SD Dharma Karya UT

I. Introduction

Latar Belakang: Pentingnya menciptakan lingkungan belajar yang menyenangkan untuk meningkatkan motivasi dan pemahaman siswa. Pembelajaran pada siswa kelas 1 memerlukan pendekatan yang berpusat pada siswa agar mereka terlibat aktif.

Masalah Aktual

Berdasarkan hasil observasi awal dan tinjauan literatur, terdapat indikasi kuat mengenai rendahnya motivasi belajar serta pemahaman siswa terhadap materi pelajaran jika disampaikan menggunakan metode konvensional yang bersifat searah *teacher-centered*. Kondisi ini diperburuk oleh berbagai hambatan dalam kesiapan belajar siswa di kelas yang mencakup aspek kognitif maupun psikologis. Beberapa poin krusial yang mendasari permasalahan ini meliputi:

1) Metode pembelajaran konvensional yang kaku dan minim variasi strategi sering kali memicu kejenuhan dan kebosanan pada siswa. Hal ini menempatkan siswa sebagai penerima pasif yang hanya mendengarkan dan mencatat, sehingga mereka cenderung kehilangan fokus dan kurang terlibat dalam proses penemuan konsep.

2) Rendahnya pemahaman siswa terbukti secara empiris melalui data nilai yang memprihatinkan. Sebagai contoh, ditemukan fakta bahwa sekitar 54% siswa belum mencapai nilai Kriteria Ketercapaian Tujuan Pembelajaran (KKTP) yang ditetapkan. Secara lebih luas, hasil PISA Indonesia yang konsisten berada di peringkat bawah menunjukkan bahwa kemampuan siswa dalam memecahkan masalah kompleks dan berpikir kritis masih tergolong rendah.

Figure 1. Flowchart of the Reflective Study Implementation in Class 1.1

Gibbs Reflective Cycle

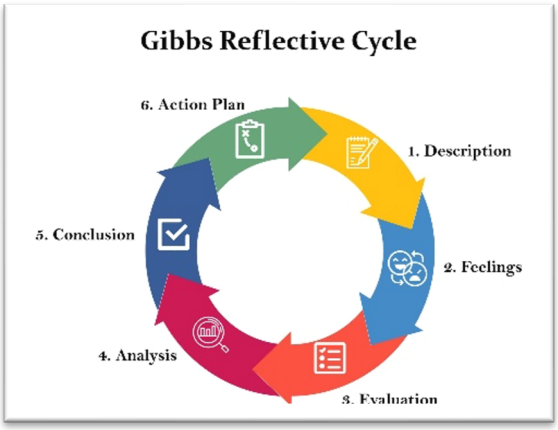


Figure 2. Stages of the Gibbs Reflection Model in Teaching Evaluation

Documentation of Student Activities



Figure 3. Student Collaboration Activities Using Digital Games

Game Media Display



Figure 4. Educational Games to Visualize Abstract Concepts

Figure 1. Flowchart of the Reflective Study Implementation in Class 1.1

This figure illustrates the flow of research conducted systematically in Class 1.1 at Dharma Karya UT Elementary School. The research process began with the identification of actual problems in the field, namely indications of low motivation and barriers to students' readiness to learn using conventional teaching methods.

Figure 2. Stages of the Gibbs Reflection Model in Teaching Evaluation

This figure presents the Gibbs Reflection Cycle, which serves as the researcher's primary tool for selfassessing pedagogical performance. There are six stages described in this diagram: Description: Objectively describing the implementation of educational games. Feelings: Examines the emotional aspects of teachers and students, such as the sense of joy experienced while playing. Evaluation: Assessing the success of interactions and technical obstacles, such as device lag. Analysis: Analyzing why time management challenges arose during the game. Conclusion: Drawing the conclusion that teachers' readiness to operate technology is crucial. Action Plan: Formulating concrete improvements, such as developing a more structured game guide for the next cycle.

Figure 3. Student Collaboration Activities Using Digital Games

This image is authentic documentation showing the transformation of classroom dynamics at Dharma Karya UT Elementary School. Through this photo, it is evident that students are no longer passively sitting at their desks but are actively gathering in heterogeneous groups to solve quiz challenges. This image demonstrates the creation of meaningful social interaction in line with Vygotsky's Theory, where students learn through collaboration with peers (peer learning) in a low anxiety environment. The enthusiasm captured in this image reflects a tangible increase in students' emotional and physical engagement.

Figure 4. Educational Games as a Medium for Visualizing Abstract Concepts

This image displays the interface of the digital media used by Quiziz. The description of this image focuses on the media's ability to visualize abstract English vocabulary concepts into visual and audio elements that capture the attention of lower grade students. The

use of bright colors, clear images, and the instant feedback feature in this game's interface are described as key factors that make the lesson material easier for students to absorb and remember compared to conventional lecture methods.

D. Conclusion and Recommendations

Conclusion

The implementation of educational games for students in Class 1.1 at Dharma Karya UT Elementary School has proven effective in transforming the monotonous conventional learning ecosystem into an interactive, dynamic, and low anxiety learning environment. This study successfully met its initial objectives by documenting how the integration of digital media can visualize abstract material, thereby facilitating conceptual understanding and naturally fostering 21st century skills (4Cs) in lower grade students. The scientific justification for these findings indicates that the game functions as effective social scaffolding in accordance with Vygotsky's Theory, enabling students to view mistakes as part of the exploration process. This reflective study, using the Gibbs model, offers a novel insight: the success of technology in the classroom depends heavily on teachers' pedagogical readiness to manage time and student enthusiasm, rather than merely on the availability of technological devices at school. These findings advance practical knowledge regarding the importance of teachers' selfassessment of performance to address operational challenges in the field. These results can be applied and expanded through the development of structured game based guidance modules to continuously improve the quality of basic education services.

Recommendations

Based on the results of this reflective study, there are several recommendations to improve the quality of teaching in the future:

For Teachers: It is recommended to develop more systematic game modules or guides to minimize preparation time and diversify game media to sustain students' long term motivation to learn.

For Schools: There is a need to strengthen the stability of technological infrastructure and provide digital competency training for educators so that the use of digital media can be

implemented more extensively and smoothly.

Future Research: It is recommended to conduct future experiments with a broader scope, such as involving all learning groups from Classes 1.1 to 1.4, or to investigate the long term impact of educational games on students' cognitive learning outcomes through a more rigorous quantitative experimental research design.

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