

IMPLEMENTATION OF GAME BASED LEARNING MODEL USING TANGKAS BOARD MEDIA TO IMPROVE LEARNING OUTCOMES OF THIRD GRADE STUDENTS AT STATE ELEMENTARY SCHOOL 25 PEKANBARU

PENERAPAN MODEL *GAME BASED LEARNING* MENGGUNAKAN MEDIA *PAPAN TANGKAS* UNTUK MENINGKATKAN HASIL BELAJAR PESERTA DIDIK KELAS III SD NEGERI 25 PEKANBARU

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Submitted

September 18, 2025

Accepted

September 25, 2025

Revised

10 October 2025

Published

31 Oktober 2025

Kata Kunci:

Game Based Learning;
Agile Boards;
Capaian
Pembelajaran;
Hak dan Kewajiban;
Pembelajaran
Interaktif;

Keywords:

Game Based Learning;
Agile Boards;
Learning Outcomes;
Rights and
Responsibilities;
Interactive Learning

Abstrak

Penelitian ini bertujuan untuk meningkatkan hasil belajar siswa kelas III SD Negeri 25 Pekanbaru pada materi Hak dan Kewajiban melalui penerapan model Game Based Learning dengan menggunakan media Agile Board. Penelitian ini merupakan Penelitian Tindakan Kelas (PTK) yang dilaksanakan dalam 2 siklus, yang mengacu pada model Kemmis dan McTaggart. Setiap siklus terdiri dari Plan, Action, Observation, dan Reflection. Data yang dibutuhkan dalam penelitian ini adalah data kuantitatif berupa nilai hasil belajar siswa (pretest, posttest Siklus I, dan posttest Siklus II) dan persentase ketuntasan belajar. Sedangkan data kualitatif diperoleh melalui observasi berdasarkan aktivitas dan partisipasi siswa dalam proses pembelajaran. Instrumen pengumpulan data yang digunakan adalah tes hasil belajar dan lembar observasi untuk mengamati aktivitas siswa. Hasil penelitian menunjukkan bahwa penerapan model Game Based Learning dengan menggunakan media Agile Board dapat meningkatkan hasil belajar siswa. Rata-rata jumlah siswa meningkat dari 69,45 pada prasiklus menjadi 81,54 pada siklus I dan 87,09 pada siklus II. Hal ini menunjukkan bahwa model Game Based Learning efektif dalam meningkatkan hasil belajar siswa dan keterlibatan siswa dalam pembelajaran.

Abstract

This study aims to improve the learning outcomes of third-grade students at SD Negeri 25 Pekanbaru on the material of Rights and Obligations through the application of the Game Based Learning model using the Papan Tangkas media. This study is a Classroom Action Research (CAR) carried out in 2 cycles, which refers to the Kemmis and McTaggart model. Each cycle consists of Planning, Action, Observation, and Reflection. The data required in this study are quantitative data in the form of student learning outcomes (pretest, posttest Cycle I, and posttest Cycle II) and the percentage of learning completion. While qualitative data is obtained through observations based on student activities and participation in the learning process. The data collection instruments used are learning outcome tests and observation sheets to observe student activities. The results of the study show that the application of the Game Based Learning model using the Papan Tangkas media can improve student learning outcomes. The average student score increased from 69.45 in the pre-cycle to 81.54 in Cycle I and 87.09 in Cycle II. This shows that the Game Based Learning model is effective in improving students' learning outcomes and their involvement in learning.

Citation:

Pranita, A., et.al. (2025). Application of Game Based Learning Model Using Agile Board Media to Improve Learning Outcomes of Grade III Students of SD Negeri 25 Pekanbaru. *Journal of Educational Progress*, 4(4), 747-753. DOI: <https://doi.org/10.33578/kpd.v4i3.p745-751>.

INTRODUCTION

Basic education has a strategic role in shaping the character and basic abilities of students. One of the indicators of learning success at the elementary school level is the achievement of educational goals, both in cognitive, affective, and psychomotor aspects. The Independent Curriculum and the 2013 Curriculum which are still being implemented in a transitional manner contain Pancasila Education materials that emphasize the importance of the basic values of national and state life. One of the materials that is considered fundamental in this learning is the understanding of Rights and Obligations. Students' understanding of Rights and Obligations material is part of character education from an early age. Through a good understanding of Rights and Obligations, students are expected to be able to grow into individuals who are aware of social responsibility, care for the surrounding environment, and respect diversity. However, based on initial findings in the field, the learning process on Rights and Obligations materials has not run optimally. Teachers tend to use conventional learning methods with a one-way approach, dominantly applying the lecture method, and the lack of use of interactive learning media and supporting the active participation of students.

Based on the results of observations carried out in Classes III-B SD Negeri 25 Pekanbaru, the researcher found several problems in the process of learning Rights and Obligations material. First, most students have not reached the Minimum Completeness Criteria (KKM). The average class score showed that of 22 students, only 31.8% obtained a score above the KKM. This means that only 7 students have reached the KKM in the Rights and Obligations material, while the other 15 students have not reached the KKM. Second, learning activities in Pancasila Education subjects still seem monotonous with the use of conventional methods that tend to be one-way. Third, teachers only rely on books as the main learning resource and rarely use learning media that can support the understanding of the material more effectively and enjoyably. Learning media is the right means for students to use in order to make it easier to understand the material effectively (Gogahu & Prasetyo, 2020; Herliana & Anugraheni, 2020). Fourth, students tend to be passive, lack enthusiasm, and seem to have difficulty understanding the material, especially in the material on Rights and Obligations. This shows that the learning model applied has not been able to stimulate learning interest, create a fun and meaningful learning atmosphere for students.

Based on these problems, innovation in learning strategies is needed. One of the relevant models that has great potential to improve learning outcomes and student engagement is *Game Based Learning*. The *Game Based Learning* model emphasizes more on achieving learning goals and learning styles, not just the content of learning materials (Saksrisathaporn, 2020). The *Game Based Learning* model integrates elements of play in learning activities, which can motivate learners and increase their active participation. Through games, students are invited to learn collaboratively, contextually and fun. A study showed that groups that took courses with game-based pedagogy were successful in improving learners' learning outcomes and engagement, by adding "meaning" to the elements of the game in the gamification process (Gupta & Goyal, 2022).

The *Game Based Learning model* is applied through the use of *Papan Tangkas* (Snake Ladder of Students' Rights and Obligations), which is an educational game in the form of a snake and ladder that is specifically designed to deliver teaching materials by involving physical and cognitive activities in an integrated manner. This media is adapted to suit the content of the Rights and Obligations material that is developed to be used in groups. In addition to functioning as a visual aid and a means of play, the *Agile Board* also plays a role in fostering interaction between students. Several previous studies have proven the effectiveness of *Game Based Learning* in improving learning outcomes and student engagement at the elementary school level (Sari & Nugroho, 2022;

Rachmawati *et al.*, 2023). Based on this background, this study aims to find out how the application of *the Game Based Learning* model using *Agile Board media* can improve the learning outcomes of grade III students in the Rights and Obligations material at SD Negeri 25 Pekanbaru.

METHOD

This research was carried out in grades III-B SD Negeri 25 Pekanbaru in the even semester of the 2024/2025 school year. The number of students involved in this study is 22 people, consisting of 11 male students and 11 female students. The type of research used is Class Action Research (PTK). The purpose of this study is to find out whether the application of *the Game Based Learning* model can improve students' learning outcomes in Rights and Obligations materials. Classroom Action Research is a form of reflective research conducted by teachers to improve the quality of learning through certain actions that are systematically designed. According to Wiriaatmadja (2009), Classroom Action Research is a study conducted by a group of teachers systematically to improve educational practices. McNiff in Dahlani (2019) stated that Classroom Action Research is a type of reflective research conducted by teachers and the results can be used for curriculum development, school quality improvement, and strengthening teaching skills.

The Classroom Action Research Model used in this study refers to the Kemmis and Mc Taggart model which consists of four stages, namely Planning, *Acting*, *Observing*, and *Reflecting*. Each cycle will be performed sequentially and can be repeated for the next cycle based on the results of the reflection of the previous cycle. The variables in this study consist of independent variables, namely *the Game Based Learning model*, and dependent variables, namely the learning outcomes of students on rights and obligations materials. The following is the scheme of the research model of Kemmis and McTaggart:

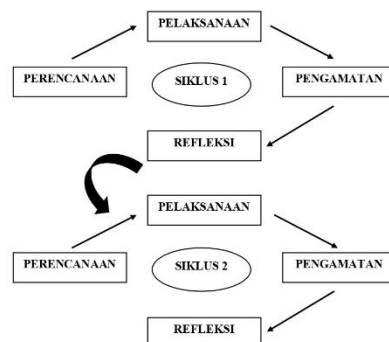


Figure 1. Kemmis and McTaggart Research Model Scheme

The data obtained in this study consists of quantitative data and qualitative data. Quantitative data is in the form of student learning outcome scores obtained through learning outcome tests (*pretest*, *Cycle I posttest*, and *Cycle II posttest*), as well as the percentage of learning completeness. Qualitative data was obtained through observation sheets of teacher and student activities. The research instruments used include learning outcome tests to measure students' academic abilities, observation sheets to record the activities of teachers and students during the learning process. The instrument was used to obtain a comprehensive overview of the effectiveness of the implementation of *the Game Based Learning* model using *Agile Board media* to improve student learning outcomes.

Data analysis techniques are carried out continuously during and after the data collection process. The collected data is analyzed using a flow analysis model (*flow model*) of Miles and Huberman in Sugiyono (2019), which consists of four stages, namely data collection (*Data Collection*), data reduction (*Data Reduction*), data presentation (*Data Display*) and drawing conclusions (*Conclusion drawing*).

RESULTS AND DISCUSSION

Result

The learning process in grades III-B SD Negeri 25 Pekanbaru shows that learning activities are still dominated by the role of teachers as information centers. Teachers only rely on textbooks as the only learning medium without variations of interactive approaches. As a result, student participation tends to be low, the atmosphere of passive learning is low, and the understanding of Rights and Obligations material is still lacking. The selection of the right learning methods and media is very important to build active engagement and improve student learning outcomes (Gogahu & Prasetyo, 2020; Herliana & Anugraheni, 2020).

This research was carried out in class III-B SD Negeri 25 Pekanbaru in the even semester of the 2025/2026 school year, with a total of 22 students consisting of 11 males and 11 females with heterogeneous abilities. This research is divided into two cycles. Before action is taken, students' learning outcomes are analyzed through absorbability and learning completeness, which includes individual completeness and classical completeness. This score is used to measure students' initial abilities before being given treatment in the form of learning actions. The learning outcomes of students in grades III-B before the implementation of Classroom Action Research are presented in Table 1 below.

Table 1. Learning Outcomes of Students Before PTK

Yes	Value Interval	Category	Sum
1	92-100	Excellent	1
2	84-91	Good	1
3	75-83	Enough	5
4	66-74	Less	5
5	≤65	Very less	10
Sum			22
Class average			69,45
Category			Less
Individual completeness			7 people
Classical completeness			31,8%
Category			Incomplete

The results of the *pretest* showed that some students were still in the "lack" and "very lacking" categories, with a classical completeness rate of only 31.8%. This condition indicates the need to implement learning actions to improve student learning outcomes. After the learning actions in Cycle I are implemented, an evaluation is carried out through the learning outcome test presented in Table 2 below.

Table 2. Student Learning Outcomes in Cycle I

Yes	Value Interval	Category	Cycle I Sum	
			Meeting 1	Meeting 2
1	92-100	Excellent	1	2
2	84-91	Good	3	8
3	75-83	Enough	4	9
4	66-74	Less	14	3
5	≤65	Very less	-	-
Sum			22	22
Class average			74,36	81,54
Category			Less	Enough
Individual completeness			8 people	19 people
Classical completeness			36,3%	86,36%
Category			Incomplete	Conclusion

Based on the results of data analysis and observations in Cycle I, it is known that the learning media used has not been fully able to arouse students' interest and active involvement during the learning process. Media that is passive and less interactive causes students to easily lose focus and lack enthusiasm in participating in learning activities. The follow-up to the findings in this cycle is that the researcher decided to replace the learning media by using *the Game Based Learning* model through *the Agile Board* game. This educational game is specifically designed to increase students' involvement, learning motivation, and understanding of rights and obligations at home, school, and the surrounding environment through fun and meaningful play activities. The Agile Board learning media began to be applied in Cycle II as a form of improvement from the previous cycle. The learning outcomes of students after the use of this media are presented in Table 3.

Table 3. Student Learning Outcomes in Cycle II

Yes	Value Interval	Category	Cycle II Sum	
			Meeting 3	Meeting 4
1	92-100	Excellent	3	7
2	84-91	Good	9	8
3	75-83	Enough	8	6
4	66-74	Less	2	1
5	≤65	Very less	-	-
Sum			22	22
Class average			83,72	87,09
Category			Enough	Good
Individual completeness			20 people	21 people
Classical completeness			90,90%	95,45%
Category			Conclusion	Conclusion

The graph of the learning outcomes of students in grades III-B of SD Negeri 25 Pekanbaru shows a consistent improvement trend. Interventions in the form of the application of *Game Based Learning* with *Agile Board* media have proven to be effective in improving student learning outcomes.

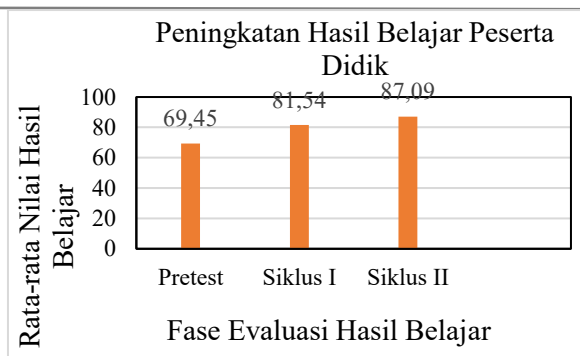


Figure 2. Graph of Average Improvement in Student Learning Outcomes

Based on data analysis and observations in Cycle II, it is known that the problems found in Cycle I are the lack of interest and involvement of students due to less interactive learning media. This condition can be overcome well through the use of this agile board media has been proven to be successful in increasing the active participation of students, creating a more pleasant learning atmosphere, and significantly increasing their understanding of the material. Therefore, the corrective actions carried out in Cycle II are considered effective, so that no further cycle is needed.

Agile Board Media in the *Game Based Learning* model is able to create a more interactive, collaborative, and fun learning atmosphere. The play activities packaged in this media not only make it easier for students to understand the concept of Rights and Obligations, but also encourage their active involvement through discussions and teamwork. Thus, the application of Agile Board media based on *Game Based Learning* has proven to be effective in significantly improving the learning outcomes of students in grades III-B of SD Negeri 25 Pekanbaru.

Discussion

Research that supports the use of Agile Boards shows that this game-based learning media is able to significantly improve student learning outcomes. This is reflected in the increase in the average score from 69.45 (pre-cycle) to 81.54 (cycle I) and 87.09 (cycle II). Classical completeness also increased from 31.8% to 95.45%. This shows that GBL not only facilitates cognitive understanding, but also encourages students' emotional engagement and enthusiasm.

Research by Winatha and Setiawan (2020) supports this finding. In his research, GBL based on the "Siki" educational card was proven to increase learning motivation by 12.09 points and learning achievement by 29.93 points. The findings underline that elements of play in GBL such as clear objectives, rules of play, and voluntary participation are important factors in improving learning outcomes holistically. In addition, this approach is also in line with the results of a literature review by Magfiroh and Marfu'i (2025) which show that interactive visual media such as Pop-Up Books can significantly increase the interest and motivation of elementary school students, especially in science learning. Pop-Up Book media is considered to be able to create a concrete, visual, and fun learning experience, which is very suitable for the cognitive characteristics of elementary school-age children. Thus, the Papan Tangkas media in the GBL model is functionally similar to the Pop-Up Book in science learning, which both present contextual and interesting content that encourages active student participation. This shows that the use of innovative media can be an effective strategy in achieving meaningful learning goals.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of classroom action research conducted in two cycles in grades III-B SD Negeri 25 Pekanbaru, it can be concluded that the application of *the Game Based Learning* model using *the Agile Board* (Snake Ladder of Student Rights and Obligations) media is effective in improving students' learning outcomes in the Rights and Obligations material. This can be seen from the increase in the average score of students, from 69.45 in the pre-cycle, to 81.54 in Cycle I, and increased again to 87.09 in Cycle II. In addition, the classical completeness rate increased significantly from 31.8% to 95.45%. This learning model not only has an impact on cognitive achievement, but also increases active participation, social interaction, and students' enthusiasm in the learning process. Thus, *Agile Board-based Gaming Based Learning* media has proven to be able to create a fun, interactive, and meaningful learning atmosphere.

The author provides recommendations so that teachers can apply innovative learning models such as *Game Based Learning* more broadly, especially in abstract or normative materials. Media such as *Papan Tangkas* can be an alternative to increase students' interest, motivation, and overall learning outcomes. Subsequent researchers can also use this as a reference in the development of media and game-based learning models.

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