



Increasing Student Activeness Using Digital Gamification Learning Media Through Kahoot

¹Febriyanti Dwi Putri, ²Sony Yuda Arianto, ³Fitri Carli Wiseza

^{1,2,3} Yasni Bungo Islamic University Jambi, Indonesia

febriyantidwiputri395@gmail.com, soniyuda05@gmail.com, fitriawiseza@gmail.com

Article History:

Received:

14-08-2026

Revised:

23-09-2026

Accepted:

30-09-2026

Keywords:

Digital Gamification; Kahoot; Student Activeness; Pancasila Education; Class Action Research.

*Correspondence Address:

febriyantidwiputri395@gmail.com

Abstract:

Student activeness in Pancasila Education in grade IV B of SDN 192 II Sungai Buluh, Bungo Regency, remains low because learning is dominated by teachers and only a few students participate consistently in questions, discussions, and assignments. This classroom action research aimed to describe the planning and implementation of Kahoot-based digital gamification and to analyze its effect on student activeness. Following Kurt Lewin's model, the study was conducted in two cycles of two meetings each, involving 21 fourth-grade students in the 2025/2026 even semester. The material covered norms, rules, rights, and obligations. Data were collected through observation, documentation, student responses, and reflection notes. Activeness was measured on five indicators: teacher interaction, discussion participation, group cooperation, courage to answer, and task completion. Average activeness increased from 43.6% at pre-cycle to 85.4% at the second meeting of cycle II, a gain of 41.8 percentage points. All indicators improved: teacher interaction (46% to 83%), discussion (42% to 84%), group cooperation (44% to 84%), courage to answer (39% to 90%), and task completion (47% to 86%). Kahoot increased student activeness when integrated with discussion, group work, feedback, teacher guidance, and reflection, offering a practical alternative for making Pancasila Education more participatory in elementary schools.

This is an open-access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Introduction (مقدمة)

Digital transformation has changed the learning needs of elementary schools from just delivering material to a learning experience that places students as actors. Student activeness is an important indicator of process quality because it is reflected in attention to explanations,

courage to ask and answer, involvement in discussions, cooperation, and perseverance in completing tasks (Amanda & Slow, 2026). However, initial observations on Pancasila Education learning class IV B SDN 192/II Sungai Buluh show that class interaction is still dominated by teachers. Of the 21 students, only about seven students consistently participate in questions and answers, express opinions, or appear in front of the class. Teacher-centered learning conditions have the potential to make students passive recipients of information and limit their opportunities to build understanding through interaction. Therefore, a media is needed that not only presents interesting material, but also provides a space for response, quick feedback, and student involvement. Strengthening this activeness is relevant for Pancasila Education which requires an understanding of values as well as an appreciation of rights, obligations, norms, and responsibilities in life together.

Recent studies on active learning confirm that media can function as a link between learning objectives, student characteristics, and meaningful activities in the classroom (Ritonga et.al., 2026). In elementary school contexts, interactive media is important because it helps teachers focus students' attention, visualize information, and create a variety of activities that reduce boredom. Digital gamification is an approach that integrates elements of games, such as challenges, scores, deadlines, feedback, and rewards, into learning activities without changing the substance of competencies (Hasanah et.al., 2025). These elements have the potential to increase behavioral and cognitive engagement if they are designed in harmony with the material, student development level, and evaluation objectives (Rivera & Garden, 2021). Thus, gamification is not just the use of technology or competition, but a pedagogical strategy to condition students to pay attention to questions, make decisions, evaluate answers, and reflect on their understanding. Its success depends on the role of the teacher in formulating meaningful questions, providing mentoring, and managing interactions after the game. This perspective places the media as an integral part of the active learning design, not a mere complement to the closing stage.

Kahoot is an online quiz platform that allows teachers to present questions in a game format and monitor student responses directly (Wang & Tahir, 2020). Through a combination of multiple-choice questions, response times, score gain, leaderboards, and feedback, the platform creates a participatory learning rhythm. The literature used shows that Kahoot has been used in a variety of subjects to support evaluation, motivation, and learning outcomes; the study also emphasizes its appeal to learners who are familiar with the digital environment (Lashari et al., 2023). However, the effective use of Kahoot must be understood more broadly than the quick-answer race. Teachers need to relate each question to the learning objective, discuss the reason for the answer, give students the opportunity to explain their thoughts, and ensure that the competition remains inclusive. In Pancasila Education learning, such a design can connect quizzes with norms, rules, rights, and obligations (Fasha et.al., 2024). Therefore, Kahoot has the potential to become a gamification medium that facilitates attention, courage to respond, social interaction, and involvement in completing measurable tasks in grade IV.

The state of the art of this study lies in the shift in focus from measuring learning outcomes to observing the process of student activity during the application of digital gamification. A number of previous studies reported the use of Kahoot in the evaluation of Informatics, Bahasa Indonesia, Mathematics, and Science subjects, while other studies discussed increasing activeness through different learning models (Nirwana et.al., 2025). The findings provide the basis that interactive media and structured activities can support learning, but have not automatically answered the problem of activeness in the context of Pancasila Education in elementary schools (Istiqomah & Wibowo, 2024). The character of Pancasila Education material requires involvement that goes beyond the accuracy of answers, namely the ability to listen, discuss, collaborate, express opinions, and complete tasks with responsibility (Rosyad & Mahamood, 2026). This study positions Kahoot as a classroom intervention combined with questions and answers,

discussions, and reflections. The use of classroom action research allows action improvement to be carried out cyclically through planning, implementation, observation, and reflection. This approach produces contextual evidence regarding changes in student activity and learning improvements in class IV B SDN 192/II Sungai Buluh.

The study shows the benefits of Kahoot and gamification for motivation, evaluation, and learning outcomes, but leaves three empirical gaps. First, the study places learning outcomes as outputs, so that changes in the activity of multidimensional students have not been systematically measured. Second, evidence of the use of Kahoot in elementary school Pancasila Education, especially norms, rules, rights, and obligations, is still limited in this reference. Third, some of the application focuses on quizzes, without explaining its integration with discussions, group work, and reflection to help passive students. The novelty of this research lies in the application of digital gamification through Kahoot as an integrated pedagogical action in learning Pancasila Education grade IV B SDN 192/II Sungai Buluh. Activeness was observed through five indicators: interaction with teachers, discussions according to direction, group cooperation, courage to answer questions, and efforts to complete individual and group tasks. With a cyclical classroom action research design, this study not only assesses changes in scores, but also uses the results of observations to improve learning actions in the next cycle in a contextual, reflective, and sustainable manner.

This research aims to increase student activity through Kahoot digital gamification media in learning Pancasila Education in grade IV B SDN 192/II Sungai Buluh. Its operations are directed to design, implement, observe, and reflect on Kahoot learning that integrates quizzes, questions and answers, discussions, cooperation, and feedback. The purpose of placing an increase in activeness is not only an increase in response during the game, but also as a change in student involvement in the learning series. Based on this goal, the formulation of the problem is: how to plan the implementation of digital gamification learning media through Kahoot to increase student activity in Pancasila Education learning grade IV B SDN 192/II Sungai Buluh?; how to implement the application of digital gamification learning media through Kahoot in increasing student activity in learning?; and how to increase student activity after the implementation of digital gamification learning media through Kahoot is reviewed through interaction with teachers, discussions, cooperation, courage to answer, and efforts to complete assignments? These three are expected to be the basis for learning improvement for classroom teachers.



Method (منهج)

This study uses a classroom action research (PTK) approach with the Kurt Lewin model to increase student activity through the application of Kahoot digital gamification learning media in Pancasila Education learning (Darmastuti & Sartono, 2026). This approach was chosen because it allows the improvement of the learning process to be carried out gradually, participatorily, and reflexively based on real problems found in the classroom. The research was carried out in the even semester of the 2025/2026 school year in grade IV B SDN 192 II Sungai Buluh, Bungo Regency. The research subjects totaled 21 students who were actively involved in all stages of action and observation. The selection of subjects was based on the results of initial observations that showed low student activity in interacting with teachers, participating in discussions, working together in groups, answering questions, and completing assignments. The learning materials used included norms, rules, rights, and obligations in daily life according to the learning outcomes of Pancasila Education in the Independent Curriculum. The research was carried out in two cycles, with each cycle consisting of two meetings lasting 2×35 minutes.

Each research cycle follows the four stages of the Kurt Lewin model, namely planning, implementing actions, observation, and reflection. In the planning stage, the researcher and the

classroom teacher compile a teaching module, prepare Kahoot questions that are in harmony with the learning objectives, prepare student worksheets, prepare digital tools, and design student activity observation sheets. The implementation stage begins with the delivery of learning objectives, perception through student experience, explanation of the procedure for using Kahoot, and the implementation of digital quizzes (Rushdan, 2022). Quiz activities are not positioned only as a competition to answer questions, but are combined with questions and answers, explanation of reasons for answers, group discussions, and completion of individual and group assignments. During the action, the teacher provides guidance to students who are not yet active and manages interactions so that all students have the opportunity to participate. Observers record the implementation of learning and student responses using the instruments that have been prepared. The results of the observation were analyzed with the teacher at the reflection stage to identify obstacles, evaluate actions, and make improvements in the next cycle.

Research data was collected through observation, learning documentation, student responses during the use of Kahoot, and teachers' reflection notes. The main instrument was in the form of an activeness observation sheet that measured five indicators, namely student-teacher interaction, participation in discussions according to the teacher's direction, cooperation in groups, courage to answer questions, and efforts to complete individual and group tasks (Rohman et.al., 2024). Each indicator was assessed using a score range of 1–4, namely score 1 indicating very low involvement, score 2 low involvement, score 3 good involvement, and score 4 excellent involvement. Quantitative data was analyzed descriptively through percentage calculation with the formula, with the total score obtained and as the maximum score. Qualitative data from observation and reflection records were analyzed through data reduction, data presentation, and conclusion drawn. The success of the action was determined based on the percentage increase in all indicators of activity from pre-cycle to cycle II. $P = \frac{f}{N} \times 100\%$

Result (نتائج)

The planning for the implementation of digital gamification learning media through Kahoot was systematically prepared to answer the initial condition of low activity of grade IV B SDN 192 II Sungai Buluh students in learning Pancasila Education. This stage began with the identification of pre-cycle results which showed that five indicators of activity were still in the low category, especially the courage to answer questions at 39% and the participation in discussions according to the teacher's direction at 42%. Based on these findings, the researcher and the teacher prepared a teaching module of norms, rules, rights, and obligations materials; prepared Kahoot questions that are relevant to the learning objectives; provided tools, networks, and game PINs; and designed group worksheets. The observation instruments were prepared with an assessment scale of 1–5 to measure interaction with teachers, discussions, group cooperation, courage to answer, and efforts to complete tasks. The action plan also contains time allocation, discussion mechanisms after quizzes, providing feedback, and mentoring for students who are not yet active. Thus, Kahoot is designed not only as a competitive game, but as an integrated learning medium that facilitates student participation, reflection, and strengthening understanding.

Table 1. Planning for Kahoot implementation actions

Planning components	Action plan	Linkage with student activity
Identify the problem	Pre-cycle observation of 21 students	Establish the need to increase learning activity
Learning materials	Norms, rules, rights, and obligations	Adjusting Pancasila Education material grade IV

Main media	Kahoot digital quiz based on multiple-choice questions	Create immediate responses, challenges, scores, and feedback
Learning tools	Teaching modules, Kahoot questions, LKPD, digital devices, game PINs	Guarantee technical and pedagogical readiness of actions
Observation instruments	Observation sheet scale 1-5	Systematically measure five indicators of activity
Activity indicators	Interaction, discussion, cooperation, courage to answer, task completion	Becomes the basis for observation and reflection in each cycle
Follow-up	Discussion of reasons for answers, reflection, and student assistance	Prevent Kahoot from becoming just a competitive quiz activity

The implementation of actions is carried out in two cycles, with each cycle consisting of two meetings and following the stages of planning, action, observation, and reflection. In the initial activity, the teacher conveys the learning objectives, relates the Pancasila Education material to the students' daily experience, and explains the procedure for using Kahoot. Students then enter the game PIN, answer the questions within the time limit, and get immediate feedback on the chosen answers. During the action, the teacher not only monitors the score achievement, but also directs students to explain the reason for the answer, discuss according to the direction, and work together to complete group assignments. In cycle I, student activities still show limited improvement because some students are not confident in using the device and expressing their opinions. The results of the reflection are then used to improve the implementation in cycle II through a more assertive explanation of rules, more heterogeneous grouping, passive student assistance, and discussion after each important question. These improvements make learning more directed, inclusive, and encourage students to engage in the entire series of activities.

Table 2. Implementation of actions in each cycle

Implementation stage	Cycle I	Reflection and improvement	Cycle II
Early activities	The teacher conveys the purpose and introduces the use of Kahoot	Some students still need technical direction	Teachers clarify procedures, rules, and division of roles
Quiz implementation	Students answer Kahoot questions individually or in groups	Participation is not evenly distributed; some students are passive	Teachers provide direct assistance to students who are not yet active
Answer discussion	The discussion is conducted after a certain question	Explanation of why the answer has not involved all students	Discussion expanded with opportunities to explain and respond
Group work	Students complete assignments based on quiz material	Group cooperation has not been consistent	Groups are arranged more heterogeneously and assigned tasks
Feedback	The teacher corrects the answer	Feedback needs to be more structured	Direct feedback followed by reinforcement of material concepts
Observations	Observers noted five indicators of activity	Data is used to determine corrective actions	Observations show that student involvement is more evenly distributed
Reflection	Technical obstacles and student courage were found	Improved learning strategies	The action achieves a more pronounced increase in activeness

The application of digital gamification media through Kahoot showed an increase in student activity from pre-cycle to cycle II of the second meeting. In the initial condition, the achievement of five indicators was still low, with the percentage of student interaction with teachers 46%, discussion according to direction 42%, group cooperation 44%, courage to answer questions 39%, and effort to complete tasks 47%. During cycle I, the increase occurred gradually, but it was not optimal because the highest achievement in the second meeting only reached 50% in the interaction and task completion indicators. After the actions were improved in cycle II, the change was seen to be more substantial. In the second meeting of cycle II, the interaction between students and teachers increased to 83%, the participation of discussions and group cooperation each to 84%, the courage to answer questions reached 90%, and the effort to complete the task reached 86%. The courage to answer was the indicator with the highest achievements, which showed that the quiz format, quick feedback, discussion, and teacher support could reduce students' hesitation to participate. These findings confirm that Kahoot is effective when integrated with question and answer activities, group work, and learning reflection, rather than being used as a separate quiz.

Table 3. Development of student activity percentage

Activity indicators	Precycle	Cycle I		Cycle II		Transcendental-final ascension	Success status
		First meeting	Second meeting	First meeting	Second meeting		
Student-teacher interaction	46%	48%	50%	54%	83%	37 points	Achieved
Discussion according to the teacher's instructions	42%	44%	47%	53%	84%	42 points	Achieved
Cooperation in groups	44%	45%	47%	52%	84%	40 points	Achieved
Courage to answer questions	39%	42%	46%	53%	90%	51 points	Achieved
Efforts to complete individual and group tasks	47%	48%	50%	54%	86%	39 points	Achieved
Average activity	43,6%	45,4%	48,0%	53,2%	85,4%	41.8 points	Achieved



Discussion (مناقشة)

The planning for the implementation of digital gamification learning media through Kahoot was prepared in response to the low activity of grade IV B SDN 192 II Sungai Buluh students in Pancasila Education learning. In the pre-stratulus condition, five indicators of activeness showed inadequate achievements, namely student-teacher interaction by 46%, participation in discussions according to the teacher's direction by 42%, group cooperation 44%, courage to answer questions 39%, and efforts to complete individual and group assignments 47%. These findings show that the previous learning process did not fully provide enough space for students to respond, express opinions, and build understanding collaboratively. Therefore, action planning is not only directed at the use of technology, but also at designing a more active and

meaningful learning experience. Kahoot was chosen because it combines elements of questions, deadlines, scores, leaderboards, and direct feedback that has the potential to arouse students' attention. However, the media is placed as part of a pedagogical strategy that is integrated with questions and answers, discussions, group work, and reflection.

The planning stage begins with the preparation of the Pancasila Education teaching module which contains material on norms, rules, rights, and obligations in daily life. The selection of this material is relevant to the learning characteristics of Pancasila Education which is not only oriented towards mastering concepts, but also on students' ability to understand responsibilities, respect rules, and build social behavior (Ratnawati et.al., 2024). The learning objectives are then translated into Kahoot question items that are arranged in stages, using language that is easy for grade IV students to understand, and associated with contexts that are close to their lives at home, school, and community. Problem planning not only considers the accuracy of the answers, but is also designed to spark reasons, discussions, and clarification of understanding. In this way, Kahoot serves as an initial stimulus that opens up opportunities for students to observe problems, make choices, and explain the basis of their thinking. This design is aligned with the concept of gamification which places challenges, quick responses, and feedback as a means to drive students' behavioral and cognitive engagement in learning.

In addition to preparing materials and questions, the researcher and the teacher developed learning tools that support the implementation of actions consistently. These tools include teaching modules, Kahoot questions, student worksheets, media usage guides, digital devices, internet networks, and game PINs that students use to access quizzes (Aljas et.al., 2025). Device readiness is an important part of planning because the use of digital media in elementary schools can be disrupted if teachers do not anticipate technical obstacles, such as device limitations, internet connections, or differences in students' ability to operate technology. To reduce these obstacles, teachers design an explanation of the procedure for using Kahoot before the core activity and prepare assistance for students who are not used to using digital devices. Planning also pays attention to the timing of learning so that quiz activities do not reduce students' opportunities to discuss and complete assignments. Thus, learning tools are not understood as administrative completeness, but as a controlling instrument so that actions take place in a directed, inclusive, and in accordance with the goal of increasing student activity.

The planning of data collection instruments is also an important component because this study focuses on changes in student activity, not solely on improving learning outcomes. The observation sheet is designed to assess five indicators, namely student-teacher interaction, participation in discussions according to the teacher's direction, cooperation in groups, courage to answer questions, and efforts to complete individual and group assignments. The five indicators were chosen because they represent student involvement during the learning process, both in the dimensions of communication, collaboration, courage, and perseverance. The use of observation instruments allows observers to record gradual changes in student behavior at each meeting and cycle (Reeve et al., 2025). The observation data is then used as a basis for reflection to determine the parts of the action that need to be maintained or improved. This planning is in line with the characteristics of Kurt Lewin's model classroom action research, which places the collection of empirical evidence as the basis for action improvement in the next cycle. With instruments that are aligned with the research objectives, action evaluation can be carried out in a more objective and targeted manner.

Action planning also places the teacher as a facilitator who manages the learning atmosphere, not just a material presenter or quiz supervisor. In the learning design, the teacher is directed to clearly convey the objectives, connect the material to the student's experience, provide direction for the use of Kahoot, and facilitate discussions after students answer the questions. The teacher is also planned to reinforce the correct answers, correct misconceptions, and encourage students who have not yet dared to participate. This approach is necessary so that

the competitive element in Kahoot does not cause some students to dominate the activity, while other students are only observers. Therefore, planning includes group formation, giving opportunities to explain the reason for the answer, and collaborative tasks after the quiz (Wang & Tahir, 2020). The design helps ensure that each student has a path to participation, whether through individual responses, group discussions, or task completion. Thus, the action design shows that the effectiveness of Kahoot is not solely determined by its digital features, but by the teacher's ability to integrate it into structured and inclusive active learning.

Overall, Kahoot implementation planning shows a strong fit between research problems, action objectives, learning strategies, observation instruments, and success indicators. The low achievement of the pre-programlus, especially the courage to answer questions at 39% and discussion participation at 42%, provides an empirical basis that students need a more responsive learning environment and provide opportunities to participate gradually. Kahoot planning as a gamification medium answers these needs through the use of interactive questions, direct feedback, and activities that require student involvement. However, the results of this planning cannot be understood as evidence that technology automatically increases activeness. The pedagogical value of actions lies precisely in the integration of digital quizzes with discussions, group cooperation, guidance, and learning reflection. This suitability can be seen in the increase in indicator achievement in the next stage, especially after actions are refined through cyclical reflection. Thus, problem-based planning, considering student characteristics, and connecting technology with the learning objectives of Pancasila Education are important prerequisites for increasing student activity.

The implementation of the application of digital gamification learning media through Kahoot is carried out through two action cycles, each of which includes the stages of implementation, observation, and reflection. The action begins with an introductory activity in the form of conveying learning objectives, perceptions that connect the norms, rules, rights, and obligations material with students' daily experiences, and an explanation of the procedure for using Kahoot. This stage is important to ensure that students understand not only the game mechanics, but also the academic objectives of the activities to be carried out. Next, students access the quiz through the game PIN, answer questions within a certain time limit, and receive direct feedback on their answers. The implementation changes the learning pattern that originally tended to be teacher-centered into a process that gives students more space to respond to the material. Kahoot serves as a spark of attention and participation because each student needs to make a decision on the available answers (Campillo et.al., 2020). However, the action does not stop at the activity of answering the quiz, but continues with clarification of concepts, questions and answers, and directed discussions so that student involvement includes behavioral and cognitive aspects.

In cycle I, the implementation of actions showed an initial change in student involvement, although the increase was not even in all indicators. In the first meeting, student interaction with teachers reached 48%, discussion according to the teacher's direction 44%, group cooperation 45%, courage to answer questions 42%, and effort to complete assignments 48%. This achievement increased compared to the pre-current condition, but still showed that most students were not fully used to actively participating in digital media-based learning. At the second meeting of cycle I, the increase continued to 50% in interaction with teachers and efforts to complete tasks, 47% in group discussions and cooperation, and 46% in courage to answer questions. This gradual change shows that student involvement does not grow instantly just because of the use of Kahoot. Students need time to understand the procedures for using media, adjust to quiz activities, build a sense of security to deliver answers, and interact in groups (Liu, 2022). Therefore, the implementation of cycle I serves as an adaptation stage that provides the basis for refining the next action.

The results of observations in the first cycle then became the basis for reflection to improve

the implementation in the second cycle. The reflection showed that some students were still passive in the discussion, there were differences in their ability to use digital devices, and the opportunity to explain the reasons for the answers was not completely evenly distributed. Based on these findings, teachers strengthened the briefing before the quiz, provided more intensive assistance to students who were not active, and organized group activities in a more structured manner. Teachers also not only announced correct and incorrect answers, but also provided opportunities for students to explain their considerations, respond to their friends' answers, and connect concepts to real situations at school and home (Hennessy et.al., 2021). This strategy expands the function of Kahoot from an evaluation medium to a means of learning dialogue. Competition management is also directed in an inclusive manner so that scores and leaderboards do not cause dominance of certain students. With a more proportional distribution of participation opportunities, students who previously tended to be silent can be involved through group discussions, responses to questions, and assignment execution. This improvement is in accordance with the PTK principle that reflection is used to improve actions based on observational evidence.

In the second cycle of the first meeting, the implementation of the corrected actions began to produce more consistent improvements. Student-teacher interaction reached 54%, discussion according to direction reached 53%, group cooperation 52%, courage to answer questions 53%, and effort to complete assignments 54%. The improvement showed that clearer explanation of procedures, teacher mentoring, and reinforcement of discussions after quizzes had helped students adapt to active learning patterns. Furthermore, in the second meeting of cycle II, all indicators improved significantly: student-teacher interaction reached 83%, discussion and group cooperation reached 84%, courage to answer questions reached 90%, and effort to complete assignments reached 86%. These results show that the integrated implementation of Kahoot is able to create a more participatory learning atmosphere. Courage to answer as the highest indicator shows that students are more willing to deliver responses when questions are presented in an engaging format and when teachers build a classroom climate that does not judge mistakes (Mundt & Hänze, 2022). Thus, the implementation of actions not only increases the frequency of responses, but also strengthens students' confidence in the learning process.

The implementation of learning also shows that the effectiveness of Kahoot depends on its integration with the pedagogical role of the teacher. The features of scores, deadlines, feedback, and leaderboards are indeed able to attract students' attention, but these features do not by themselves guarantee the understanding of the material and the involvement of all students. In this study, the teacher takes the role of a facilitator who directs students to understand learning objectives, gives time to think, guides discussions, corrects misconceptions, and provides support to students who are not yet confident. The integration of quiz activities with explanations of answer reasons and group assignments is also relevant to the Pancasila Education material which emphasizes the understanding of values, norms, rights, obligations, and responsibilities (Riggs et.al. 2020). Students are not only asked to choose the correct answer, but are also involved to consider the consequences of an action and discuss its application in daily life. Therefore, the implementation of Kahoot in this study fulfills the principle of gamification which places game elements as a means to increase engagement, not as the ultimate goal of learning. The quality of implementation is determined by the suitability between media, materials, social activities, and teacher guidance during the action.

Analytically, the implementation of the action showed that the increase in student activity was formed through the process of adaptation and improvement of learning cyclically, not solely through the introduction of digital media. In cycle I, the achievement of indicators was still around 42%, which indicates that Kahoot has triggered the initial response, but has not completely changed the pattern of student engagement. Reflection on these obstacles resulted in improvements in the form of more detailed briefing, passive student mentoring, more structured

group management, and discussion of answer reasons after the quiz. This improvement correlated with a sharp increase in the second cycle of the second meeting, when all indicators were in the 90% range. The courage to answer questions increased from 39% in the precycle to 90% at the end of the second cycle shows that an interactive response format, combined with a supportive learning environment, can strengthen students' confidence. Thus, the success of the action lies in the learning design that places Kahoot as a link between formative evaluation, teacher-student communication, group cooperation, and reflection on the concept of Pancasila Education

The increase in student activity after the implementation of digital gamification learning media through Kahoot was seen gradually from the pre-cycle condition to the end of cycle II. In the preliminary stage, student involvement in learning Pancasila Education was still low. Student-teacher interaction was at 46%, discussion according to the teacher's direction was 42%, group cooperation 44%, courage to answer questions 39%, and effort to complete individual and group tasks 47%. The average achievement of the five indicators was 43.6%, which shows that learning activities are still dominated by teachers and have not provided equal participation space for all students. This condition is in line with the initial problem of the research, namely the limited courage of students in responding to questions, expressing opinions, and engaging in discussions and group work (Wei & Cao, 2024). The implementation of Kahoot then provides a change in learning patterns because students no longer only receive explanations, but are also involved in reading questions, determining answers, receiving feedback, and discussing concepts. Thus, the observed increase in activeness is not interpreted simply as an increase in numbers, but as a change in student involvement in the entire learning process.

In cycle I, the change in student activity took place gradually and showed a stage of adjustment to the use of digital media and a more participatory learning pattern. In the first meeting, the average activeness reached 45.4%, then increased to 48.0% in the second meeting. In detail, student interaction with teachers increased from 46% in the pre-cycle to 50%, discussions increased from 42% to 47%, group cooperation increased from 44% to 47%, courage to answer increased from 39% to 46%, and efforts to complete tasks increased from 47% to 50%. Although the increase is not yet high, these results show that the existence of Kahoot is starting to attract attention and encourage students to respond to learning activities. The changes that are still limited can be understood because students need time to adapt to the rules of the game, the use of devices, the time limit for answering, and the discussion activities that accompany the quizzes (Zhang & Yu, 2021). Therefore, the results of cycle I are not positioned as failures of action, but rather as evidence that active learning requires habituation, mentoring, and consistent classroom management so that each student can participate more confidently.

A more noticeable increase occurred in cycle II after the teacher made action improvements based on the results of the reflection of cycle I. In the first meeting of cycle II, the average activity increased to 53.2%, with the achievement of student-teacher interaction of 54%, discussion 53%, group cooperation 52%, courage to answer 53%, and effort to complete tasks 54%. Improvement in actions in the form of clearer direction, assistance to passive students, more structured group organization, and discussion of answer reasons after the quiz helped students understand their role in the learning process. These developments show that Kahoot media becomes more effective when students are not allowed to face digital activities independently, but are supported by teacher facilitation and social interaction in the classroom (Dumile & Boateng, 2026). In learning Pancasila Education, this approach is very relevant because an understanding of norms, rules, rights, and obligations is not enough to be built through the selection of correct answers. Students need to have the opportunity to connect concepts with daily experiences, listen to the opinions of friends, and explain the reasons behind the answer choices they make.

At the second meeting of cycle II, all indicators of activity showed a substantial increase. Student interaction with teachers reached 83%, participation in discussions according to the

teacher's direction reached 84%, courage to answer questions reached 90%, and effort to complete individual and group assignments reached 86%. The average student activity at this stage reached 85.4%, an increase of 41.8 percentage points compared to the pre-cycle average of 43.6%. The indicator of courage to answer questions increased the most, from 39% to 90%, or an increase of 51 percentage points. These achievements indicate that a learning format that combines interactive quizzes, quick responses, discussions, and teacher reinforcement can create a safer classroom atmosphere to convey answers (Bingen et al., 2023). Students are not only encouraged to pursue scores, but are also more willing to respond to questions and express their views. Meanwhile, improvements in discussion and cooperation show that digital gamification can strengthen the social dimension of learning if it is designed with collaborative activities. These results confirm that activeness grows best when individual and group activities are integrated in a balanced manner.

Changes in achievement in five indicators show that Kahoot supports increased activeness through several interrelated learning mechanisms. First, the questions displayed visually and interactively focus students' attention on the material being studied. Second, time limits and scores encourage students to make decisions immediately and take responsibility for their choices. Third, direct feedback gives students the opportunity to recognize the accuracy of the answers and improve their understanding. Fourth, discussions after the quiz open up space for students to explain reasons, accept corrections, and build common understanding. Fifth, group assignments help students who are still hesitant to participate individually to engage through cooperation with friends (Agonafir, 2023). The mechanism explains why the improvement is not only seen in the courage to answer, but also in interaction with the teacher, discussion, cooperation, and perseverance in completing the task. Thus, the application of Kahoot in this study is not understood as the use of applications alone, but as a digital gamification strategy that combines elements of challenge, feedback, communication, and collaboration in learning Pancasila Education.

Overall, the results of the study prove that the application of digital gamification learning media through Kahoot is able to increase the activeness of grade IV B students in learning Pancasila Education. Evidence of improvement can be seen in all indicators, with an increase in student-teacher interaction by 37 percentage points, discussions according to the teacher's direction by 42 points, group cooperation 40 points, courage to answer 51-point questions, and efforts to complete 39-point assignments from pre-cycle to the second meeting of cycle II. These findings strengthen the argument that gamification can create more responsive learning conditions when game elements are used in a directed manner and are not separated from the learning objectives. However, the increase cannot be claimed only as an impact of Kahoot's features. The success of the action is also influenced by the reflection cycle, strengthening the role of teachers, mentoring students who are not yet active, and the integration of quizzes with discussions and group work. In other words, Kahoot plays a role as a trigger for engagement, while the teacher's pedagogical design determines the depth and equity of student participation. Therefore, this study shows that the use of relevant, reflective, and inclusive digital media can be an alternative to improve the learning of Pancasila Education in elementary schools.



Conclusion (خاتمة)

Based on the results of class action research, the application of digital gamification learning media through Kahoot can increase the activeness of grade IV B SDN 192 II Sungai Buluh students in learning Pancasila Education. Action planning is carried out systematically through the preparation of teaching modules on norms, rules, rights, and obligations; development of Kahoot questions that are in accordance with learning objectives; provision of worksheets, digital

tools, observation guidelines, and assessment rubrics for five indicators of activeness. The implementation of actions is carried out in two cycles through perception activities, Kahoot quizzes, questions and answers, discussions, group work, direct feedback, observation, and reflection. Kahoot is not used solely as a competition medium, but is integrated with pedagogical activities that encourage students to explain the reason for the answer, interact with the teacher, and work together to complete assignments. The implementation of actions resulted in an increase in all indicators of activity, namely student-teacher interaction from 46% to 83%, discussion from 42% to 84%, group cooperation from 44% to 84%, courage to answer questions from 39% to 90%, and effort to complete tasks from 47% to 86%. Thus, Kahoot is effective as a digital gamification medium if it is designed according to learning objectives, accompanied by teacher assistance, and combined with inclusive discussion and reflection

Acknowledgment (شكر وتقدير)

The researchers wish to express sincere gratitude to the principal, teachers, and students of Grade IV B, SDN 192/II Sungai Buluh, for their cooperation and active participation throughout this classroom action research. Special appreciation is extended to the homeroom teacher for facilitating the implementation of Kahoot-based digital gamification learning across both cycles, and for valuable assistance during observation and data collection. Thanks are also conveyed to colleagues and lecturers at Yasni Bungo Islamic University Jambi for their guidance, constructive feedback, and encouragement. Finally, the researchers thank family and peers whose continuous support and motivation made the completion of this study possible.



Bibliography (مراجع)

- Agonafir, A. M. (2023). Using cooperative learning strategy to increase undergraduate students' engagement and performance. *Educational Action Research*, 31, 981-997. <https://doi.org/10.1080/09650792.2023.2231512>
- Aljas, C. J., Suana, E., & Saldivar, J. (2025). The use of digital tools in teaching general mathematics among senior high students. *International Journal of Educational Technology and Learning*. <https://doi.org/10.55217/101.v18i1.912>
- Amanda, R. Y. C., & Slow, L. (2026). Implementasi Metode Pembelajaran Jigsaw Dalam Meningkatkan Keaktifan Belajar Siswa Kelas IV SD. *Jurnal Pendidikan Dan Pembelajaran Sekolah Dasar*, 4(1), 91-101.
- Bingen, H.-M., Aamlid, H., Hovland, B. M., Nes, A., Larsen, M., Skedsmo, K., ... Steindal, S. (2023). Use of active learning classrooms in health professional education: A scoping review. *International Journal of Nursing Studies Advances*, 6. <https://doi.org/10.1016/j.ijnsa.2023.100167>
- Campillo-Ferrer, J.-M., Miralles-Martínez, P., & Sánchez-Ibáñez, R. (2020). Gamification in Higher Education: Impact on Student Motivation and the Acquisition of Social and Civic Key Competencies. *Sustainability*. <https://doi.org/10.3390/su12124822>
- Darmastuti, E., & Sartono, E. (2026). Enhancing motivation and learning outcomes in Pancasila education through Kahoot-based interactive learning in elementary school. *Diniyah: Jurnal Pendidikan Dasar*. <https://doi.org/10.31332/dy.v7i1.14425>
- Dumile, N., & Boateng, S. (2026). Game-based learning with Kahoot: Effects on grade 12 learners' anxiety, engagement, and academic performance in genetics. *Eurasia Journal of Mathematics, Science and Technology Education*. <https://doi.org/10.29333/ejmste/19124>
- Fasha, H. A., Murpratiwi, S. I., Albar, M. A., & Agetania, N. L. P. (2024). Android Educational Game for Pancasila and Civic Education Learning. *Journal of Computer Science and Informatics Engineering (J-Cosine)*. <https://doi.org/10.29303/jcosine.v8i2.615>
- Hasanah, R., Sos, M., & Ermalianti, M. P. (2025). *Gamifikasi pendidikan tinggi: teori, desain, dan integrasi pembelajaran digital*. Basya Media Utama.

- Hennessy, S., Calcagni, E., Leung, A., & Mercer, N. (2021). An analysis of the forms of teacher-student dialogue that are most productive for learning. *Language and Education*, 37, 186–211. <https://doi.org/10.1080/09500782.2021.1956943>
- Istiqomah, L., & Wibowo, S. (2024). Effective Learning of Pancasila Education through Technology-Based Interactive Media for Elementary School Students. *Jurnal Pendidikan Progresif*. <https://doi.org/10.23960/jpp.v14.i3.2024135>
- Lashari, T. A., Fiayaz, R., Lashari, S., Khan, I., Sultana, S., & Afzal, T. (2023). Kahoot: A game-based web tool to assess motivation, engagement fun, and learning outcomes among engineers. *Computer Applications in Engineering Education*, 32. <https://doi.org/10.1002/cae.22684>
- Liu, G.-Y. (2022). Research on the Relationship between Students' Learning Adaptability and Learning Satisfaction under the Mobile Media Environment. *Int. J. Emerg. Technol. Learn.*, 17, 43–58. <https://doi.org/10.3991/ijet.v17i02.28549>
- Mundt, E., & Hänze, M. (2022). Course characteristics influencing students' oral participation in higher education. *Learning Environments Research*, 26, 427–444. <https://doi.org/10.1007/s10984-022-09437-7>
- Nirwana, N., Azizah, N., Zulhannan, Z., Romlah, L. S., & Rahmatika, Z. (2025). Students Learning Activeness: An Experimental Study On The Effectiveness Of The Cooperative Learning Model Question Students Have. *JlIP - Jurnal Ilmiah Ilmu Pendidikan*. <https://doi.org/10.54371/jlip.v8i1.6523>
- Ratnawati, R., Warneri, Aunurrahman, Christiani, Y. H., & Karim, A. (2024). Optimization of Character Education in The Independent Curriculum Through the Pancasila Student Profile Strengthening Project Approach. *IJESS International Journal of Education and Social Science*. <https://doi.org/10.56371/ijess.v5i1.235>
- Reeve, J., Basarkod, G., Jang, H.-R., Gargurevich, R., Jang, H., & Cheon, S. (2025). Specialized Purpose of Each Type of Student Engagement: A Meta-Analysis. *Educational Psychology Review*, 37. <https://doi.org/10.1007/s10648-025-09989-z>
- Riggs, C., Kang, S., & Rennie, O. (2020). Positive Impact of Multiple-Choice Question Authoring and Regular Quiz Participation on Student Learning. *CBE Life Sciences Education*, 19. <https://doi.org/10.1187/cbe.19-09-0189>
- Ritonga, R., Hasibuan, Y. H., Pasaribu, I. R., Turnip, H. Z., & Anggieta, H. A. (2026). Analisis Klasifikasi dan Pemilihan Strategi Pembelajaran dalam Meningkatkan Efektivitas Proses Belajar Mengajar. *Educational Journal*, 1(2), 228–237.
- Rivera, E., & Garden, C. (2021). Gamification for student engagement: a framework. *Journal of Further and Higher Education*, 45, 999–1012. <https://doi.org/10.1080/0309877x.2021.1875201>
- Rohman, F. A., Khairi, A. I., & Devi, B. (2024). Improving Students Learning Activeness in Social Studies Subjects through Student Teams Achievement Division (STAD) Cooperative Learning Model. *Entita: Jurnal Pendidikan Ilmu Pengetahuan Sosial Dan Ilmu-Ilmu Sosial*. <https://doi.org/10.19105/ejpis.v6i1.13610>
- Rosyad, A. M., & Mahamood, S. F. (2026). A Systematic Literature Review of Pancasila Education in Higher Education: Trends, Pedagogical Innovations, and Learner Competencies. *International Journal of Science Education and Cultural Studies*. <https://doi.org/10.58291/ijsecs.v4i2.459>
- Rushdan, E. E. (2022). Effect of Using Kahoot! As A Digital Game-Based Formative Assessment Tool in Enhancing Nursing Students' Knowledge and Learning Motivation. *Egyptian Journal of Health Care*. <https://doi.org/10.21608/ejhc.2022.338035>
- Wang, A. I., & Tahir, R. (2020). The effect of using Kahoot! for learning - A literature review. *Comput. Educ.*, 149, 103818. <https://doi.org/10.1016/j.compedu.2020.103818>
- Wei, W., & Cao, Y. (2024). Willing, Silent or Forced Participation? Insights from English for Academic Purposes Classrooms. *RELC Journal*, 55, 63–78. <https://doi.org/10.1177/00336882211066619>
- Zhang, Q., & Yu, Z. (2021). A literature review on the influence of Kahoot! On learning outcomes, interaction, and collaboration. *Education and Information Technologies*, 26, 4507–4535. <https://doi.org/10.1007/s10639-021-10459-6>