HALAMAN OLAHRAGA NUSANTARA (HON)
Jurnal Ilmu Keolahragaan

Volume 9 No II
Tahun 2026

ISSN 2614-2775 (Print)
ISSN 2621-8143 (Online)

IMPROVING STUDENTS' LEARNING ENTHUSIASM THROUGH MODIFIED BASKETBALL INVASION GAMES

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Abstract
This study was motivated by the low learning enthusiasm of students in Physical Education, Sports, and Health (PJOK), particularly in basketball learning for Class XII-5 at SMA Negeri 16 Semarang. Initial observations showed that only 50% of students were categorized as having high or very high learning enthusiasm, with an average activeness of 55%. This study aimed to increase students' learning enthusiasm through modified basketball invasion games. The research employed Classroom Action Research (CAR) based on the Kemmis and McTaggart model, conducted in two cycles consisting of planning, action, observation, and reflection. The subjects were 36 students of Class XII-5. Data were collected through observation, learning enthusiasm questionnaires, documentation, and field notes, and analyzed descriptively using quantitative and qualitative approaches. The results showed that learning enthusiasm increased from 50.00% in Cycle I to 88.89% in Cycle II, while student activeness increased from 55% to 91.50%. The average learning outcome also improved from 64.94 to 83.67. All results exceeded the success indicator of 80%. Therefore, modified basketball invasion games are effective in improving students' learning enthusiasm, activeness, and learning outcomes in PJOK learning.

Keywords: *Learning Enthusiasm; Game Modification; Invasion Games; Basketball; Classroom Action Research*

Submitted : 20th of June 2026
Accepted : 29th of July 2026
Published : 31th of July 2026
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DOI http://dx.doi.org/10.31851/hon.v9i2.22742

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INTRODUCTION

Physical Education, Sports, and Health (PJOK) is an integral part of the educational process that utilizes physical activity as a medium to develop students' fitness, motor skills, thinking ability, cooperation, sportsmanship, discipline, responsibility, and self-confidence. The success of PJOK learning largely depends on the level of active involvement of students during the learning process. One important factor determining this success is learning enthusiasm, namely the sense

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of eagerness, interest, attention, and willingness of students to become actively involved in learning. Students with high enthusiasm tend to be more active in following the teacher's instructions, are willing to try new skills, and are able to cooperate with peers, whereas students with low enthusiasm tend to be passive, lack confidence, and easily lose focus, making learning objectives more difficult to achieve. Research has shown that game-based PJOK learning can enhance students' motivation and involvement compared to conventional learning (Fitriani & Umah, 2025).

The Merdeka Curriculum emphasizes student-centered learning, requiring teachers to be able to design learning experiences that are active, enjoyable, challenging, and appropriate to students' characteristics. Based on preliminary observations conducted by the researcher on basketball game learning in Class XII-5 at SMA Negeri 16 Semarang, it was found that students' learning enthusiasm was still not optimal. Some students appeared less enthusiastic, preferred to become spectators, were reluctant to pass, were less active in moving to find open space, and communicated less with their group members. Preliminary observation data showed that only 18 of 36 students (50%) were in the high and very high enthusiasm categories, while the average student activeness reached only 55%, far below the predetermined success indicator of 80%.

This problem was influenced by the form of learning that was still dominated by repeated technical drills without being packaged into engaging game activities, as well as by basketball learning conducted on a full-sized court with a large number of players, which caused the ball to be controlled more often by students with better playing ability. This condition caused some students to have fewer opportunities to play, resulting in a loss of interest in participating in learning. One effort to overcome this problem is through the modification of basketball invasion games, namely adjustments to the rules, court size, number of players, and form of game activities to suit the characteristics and needs of students. Invasion games emphasize the ability to attack the opponent's territory while defending one's own, thereby requiring students to cooperate, communicate, and make quick decisions

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(Yudanto, 2008). Recent research shows that game modification in PJOK learning can increase learning motivation, student involvement, and learning effectiveness because it provides greater opportunities for all students to participate actively (Aisyah & Andiyani, 2026), and has also been shown to improve playing skills because students gain more opportunities to touch the ball and communicate with team members (Aminarti et al., 2024).

Several relevant studies further support the urgency of this issue. Mawarti and Arsiwi (2020) showed that basketball learning in senior high school needs to be directed toward developing higher-order thinking skills, while Riview et al. (2024), through a systematic literature review, confirmed that PJOK learning models in basketball games can increase participation, learning interest, and the cognitive, affective, and psychomotor aspects of students. Nurina et al. (2014) also demonstrated that basketball games can be an effective means of fostering responsibility, cooperation, and student character. Based on the above description, the researcher considers that the implementation of basketball invasion game modification is an appropriate action to increase students' learning enthusiasm. Therefore, this study was conducted in the form of Classroom Action Research (CAR) with the aim of describing the implementation of basketball invasion game modification and measuring the increase in learning enthusiasm of Class XII-5 students at SMA Negeri 16 Semarang in PJOK learning.

METHOD

This study used a Classroom Action Research (CAR) approach based on the Kemmis and McTaggart model, implemented cyclically through four stages: planning, acting, observing, and reflecting. The study was designed in two cycles, with the reflection results of Cycle I serving as the basis for improving the action in Cycle II (Machali, 2022). The research was conducted at SMA Negeri 16 Semarang in Class XII-5 during the odd semester of the 2026/2027 academic year. The research subjects were all 36 students of Class XII-5, while the research object was students' learning enthusiasm in PJOK learning through the implementation of basketball invasion game modification.

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Data collection techniques were carried out through observation of students' learning enthusiasm using a 1-4 scale observation sheet across 20 indicators, a Likert-scale questionnaire, documentation of learning activities, and field notes. The research instruments included an observation grid, a learning enthusiasm observation sheet, an assessment rubric, and documentation, all of which were validated through expert judgment before use (Elan et al., 2022). Quantitative data were analyzed using percentages and averages to compare the results of Cycle I and Cycle II, while qualitative data were analyzed through data reduction, data presentation, and conclusion drawing based on the observation results during the action.

The action in Cycle I focused on introducing the concept and rules of the basketball invasion game in a still simple form, while the action in Cycle II involved improvements based on the reflection results of Cycle I, including more balanced group division, a reduction in court size, simplification of the game rules, the requirement for all team members to touch the ball before scoring, and the provision of positive reinforcement and rewards to the group with the best teamwork. The study was declared successful if: (1) at least 80% of students were in the high or very high enthusiasm category; (2) there was an increase in the percentage of learning enthusiasm from Cycle I to Cycle II; and (3) the learning process showed an increase in students' active participation.

RESULT AND DISCUSSION

Learning Enthusiasm in Cycle I and Cycle II

The observation results showed that in Cycle I, students' learning enthusiasm had not yet reached the established success indicator. A total of 18 students (50.00%) were in the high and very high categories, while the remaining 18 students (50.00%) were still in the moderate and low categories. After the action was improved in Cycle II, the number of students in the high and very high categories increased to 32 students (88.89%), representing an increase of 38.89 percentage points. The comparison of results is presented in Table 1.

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Table 1. Comparison of Students' Learning Enthusiasm in Cycle I and Cycle II

Cycle	High + Very High	Percentage
Cycle I	18 students	50.00%
Cycle II	32 students	88.89%
Increase	14 students	38.89%

This increase shows that the modification of the basketball invasion game was able to create more engaging learning and provide opportunities for all students to become actively involved in the game.

Student Activeness in Cycle I and Cycle II

In addition to learning enthusiasm, the researcher also observed students' activeness during learning. In Cycle I, the average student activeness reached only 55%, with the inter-student communication indicator being the lowest (43%). After improvement in Cycle II, the average activeness increased to 91.50%, with the largest increase occurring in the communication indicator, rising from 43% to 88% (an increase of 45 percentage points). The complete data is presented in Table 2.

Table 2. Comparison of Student Activeness in Cycle I and Cycle II

Indicator	Cycle I	Cycle II	Increase
Following instructions / paying attention to the teacher	78%	96%	18%
Actively moving	55%	91%	36%
Willingness to receive the ball	49%	89%	40%
Passing the ball	46%	90%	44%
Communication	43%	88%	45%
Giving encouragement	57%	95%	38%
Average	55%	91.50%	36.50%

Student Learning Outcomes in Cycle I and Cycle II

The increase in enthusiasm and activeness was accompanied by an increase in students' learning outcomes. The average student score increased from 64.94 in Cycle I to 83.67 in Cycle II, an increase of 18.73 points (28.84%). The lowest score increased from 60 to 78, while the highest score increased from 70 to 91, as presented in Table 3.

Table 3. Comparison of Student Learning Outcomes in Cycle I and Cycle II

Component	Cycle I	Cycle II	Increase
Number of students	36	36	-

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Total score	2,338	3,012	674
Average	64.94	83.67	18.73
Lowest score	60	78	18
Highest score	70	91	21

Discussion

The research results show that the implementation of basketball invasion game modification is effective in increasing the learning enthusiasm of Class XII-5 students at SMA Negeri 16 Semarang. In Cycle I, learning enthusiasm had not yet reached the success indicator because some students still lacked confidence, were less active in moving, and had not yet dared to receive and pass the ball. This condition is in line with the view that learning still dominated by repeated technical drills without game variation tends to cause boredom, especially for students with varying motor abilities. The low activeness on the communication indicator (43%) indicates that students were not yet accustomed to actively cooperating in game situations that demand quick decision-making.

The improved action in Cycle II, which included more balanced group division, a reduction in court size, simplification of the rules, the requirement for all team members to touch the ball before scoring, and the provision of motivation and rewards, proved to have a significant positive impact. Learning enthusiasm in the high and very high categories increased to 88.89%, exceeding the study's success indicator of 80%. This finding reinforces previous research showing that game modification in PJOK learning can increase learning motivation, student involvement, and the effectiveness of the learning process because it provides greater opportunities for all students to participate actively. The modification requiring all team members to touch the ball before scoring specifically succeeded in distributing ball possession more evenly, so that students who had previously tended to be passive gained equal opportunities to be actively involved in the game.

The increase in activeness across all indicators, particularly in the aspects of communication (up 45 points) and passing (up 44 points), shows that game modification encourages more intensive social interaction and teamwork. This is in

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line with the characteristics of invasion games, which require players to communicate, make quick decisions, and apply simple strategies in game situations (Yudanto, 2008). The increase in learning outcomes from 64.94 to 83.67 further confirms that students' active involvement in game-based learning contributes positively to the mastery of playing skills, consistent with the finding that learning packaged in the form of modified games gives students more opportunities to touch the ball, communicate, and make decisions, thereby creating a more meaningful learning experience compared to learning that focuses only on repeated technical drills (Nugroho & Tuasikal, 2018).

Overall, the results of this study reinforce empirical evidence that basketball invasion game modification is not merely a simplification of activity, but rather a learning strategy that systematically creates more equitable learning opportunities, increases intrinsic motivation, and encourages the active participation of all students without exception. Because the study's success indicator had been achieved in Cycle II, this classroom action research was terminated at that cycle.

CONCLUSION

Based on the results of the classroom action research conducted over two cycles, it can be concluded that the implementation of basketball invasion game modification is effective in increasing the learning enthusiasm of Class XII-5 students at SMA Negeri 16 Semarang, rising from 50.00% in Cycle I to 88.89% in Cycle II, thereby exceeding the study's success indicator of 80%. Game modification was also shown to increase student activeness from an average of 55% to 91.50%, and to increase learning outcomes from an average of 64.94 to 83.67. The modifications made namely adjustments to court size, more balanced group division, simplification of game rules, the requirement for all team members to touch the ball before scoring, and the provision of motivation and rewards proved capable of creating a more active, engaging, and student-centered PJOK learning atmosphere.

The results of this study imply that PJOK teachers do not always have to use the actual form of the basketball game, but can instead modify the court size,

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number of players, rules, and scoring system to increase the involvement of all students equally. This study has limitations because it was conducted in only one class over two cycles, so the results cannot yet be broadly generalized. Future research is recommended to develop more varied forms of game modification, apply them to other sports material, and use more comprehensive instruments so that changes in students' enthusiasm, activeness, and learning outcomes can be analyzed in greater depth.

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