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Learning Modification Of Throwing Activity To The Number Of Active Learning Time Of Students In Class X Sman 13 Bandung

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ABSTRACT

The purpose of this study was to improve the learning process of PJOK, improve the learning process of throwing activities in SMA 13 Bandung. The method used was the Classroom Action Research method (PTK) where this research was conducted in class X SMA 13 Bandung, through a process of initial observation by researchers until make action plans, then carry out observations and reflections. The research object is the source of the problems that exist in school such as facilities and infrastructure at school, then the researcher tries to solve the problems in school so that learning can be in accordance with the KI and KD that have been seen in the 2013 curriculum. observation. The technique used by researchers is in the form of qualitative and quantitative data analysis techniques. The population in class X SMA 13 Bandung which has 32 students. Based on the results of preliminary observations and implementation of actions taken during the first cycle consisting of V actions. Based on the calculation of actions in the cycle, the resulting initial observation was 52%, action I cycle I was 53%, action II was 62%, action III was 70%, action IV was 78% and action V was 82%. Overall shows an increase in increase.

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1. INTRODUCTION

The study documented in this article was conducted with the primary objective of enhancing the learning process of Physical Education (PJOK), specifically focusing on improving the active learning time of students during javelin throwing activities at SMA 13 Bandung. (Kahn et al., 2002) The Classroom Action Research (CAR) method was employed to address the identified issues within the school's facilities and infrastructure, which were found to be inadequate for effective athletics learning. The research aimed to align the teaching practices with the Core Competencies (KI) and Basic Competencies (KD) as outlined in the 2013 curriculum.

The initial observations indicated a need for modifications in the learning process to accommodate the limitations of the school's physical education facilities. The study involved 32 students from class X at SMA 13 Bandung and utilized a combination of qualitative and quantitative data analysis techniques to monitor the impact of the implemented actions.

The concept of javelin throwing is a form of movement that involves throwing an elongated tool of a certain weight, made of wood, bamboo, or metal as a modification if a javelin is not available (for competitions), using one hand to achieve the greatest possible distance, in accordance with the applicable rules (M. Alwan, 2015). Javelin throwing itself is an event within the branch of athletics that is competed in prestigious international competitions or used as a teaching material in schools, referring to the applicable curriculum. The inclusion of learning how to throw as one of the learning activities in Physical Education is due to the educational values contained in throwing activities that are relevant to the values of Physical Education, in terms of cognitive, affective, and psychomotor aspects (Perrotta, 2011). The educational values found in learning how to throw provide confidence to many people, especially educators, that throwing activities can be used as an educational tool or medium (Tsangaridou & O'Sullivan, 1997).

To achieve competence and educational values, there are still many issues occurring in the learning of throwing activities. The most important problem is related to the physical education facilities at SMA 13 Bandung, which consist of a basketball court, a volleyball court, and a futsal field. (Gallucci & Petersen, 2017) The existing facilities do not meet the curriculum requirements due to the lack of a field for athletics learning For other fields, although they are available, they do not ensure the safety and comfort of the students because of the slippery court floors, which pose a danger to the students during learning. (Hbscher, 2010) In addition, the fields available at the school do not match the number of study groups for each learning session. Therefore, the researcher attempts to modify the active learning of throwing activities to adjust the amount of active learning time for the students.

2. METHODS

In line with the focus of the problem and the research objectives mentioned above, the method used is the Classroom Action Research (CAR) method. In the Department of Education and Culture, Directorate General of Higher Education, Secondary School Teacher Development Project (1999, p. 6), "CAR is a form of reflective study conducted by the action takers to enhance the rational consistency of their actions in carrying out their duties and to deepen their understanding of the practical conditions of learning." To achieve these goals, CAR is carried out in the form of a cyclical process consisting of four stages: planning, implementing actions, observing, and reflecting. Thus, CAR is a series of teacher actions aimed at solving the learning problems faced by teachers, improving the quality and outcomes of learning, and trying out new things in learning to enhance quality and learning outcomes.

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Participation

The participants in this research are students from class X at SMA 13 BANDUNG, totaling 32 students, consisting of 15 male students and 17 female students. The researcher chose class X.5 IPS based on the initial observation results that showed the students' learning outcomes in javelin throwing activities.

Sampling

In this study, cluster sampling was used where samples were taken from the number of students in class X of SMA 13 Bandung.

Data collection

The data collection tools used are observation formats and field notes. In accordance with the learning objectives formulated, the assessment of learning outcomes must include assessments of attitudes, knowledge, and skills. The assessment techniques used are: (1) observation (2) oral test. Observations are made to students during learning activities. Meanwhile, the oral test is carried out at the end of learning.

Data collection procedures

In the initial stage, initial observations are made to see the problems that exist in the school, after which the researcher prepares a plan to be able to solve problems in the school. After designing, the researcher again made temporary observations. After that, the researcher again saw how precise the plan had been made. The researcher prepares a modification plan to the amount of active learning time of students in javelin throwing material using several cycles until significant changes occur in students.

Research Design

The data analysis technique is a continuation of the data collection stage. Data analysis techniques are a very important part of a research. Therefore, researchers must understand data analysis techniques so that the research results have good values. Referring to the research objectives and the type of data collected, the data analysis techniques used in this study are 1. For qualitative data, trigulation data is used 2. For quantitative data, tabulation data is used. There are several points in distinguishing qualitative and quantitative validity in conducting research as follows 15 aspects consisting of:

- The methodological approach aspect refers to the approach or method chosen by the researcher to research a particular phenomenon or problem. It includes the selection of quantitative or qualitative approaches, or a combination of both, that are necessary to collect, analyze, and interpret data relevant to the research objectives.
- The conceptualization aspect is concerned with the development of the underlying concepts and theoretical frameworks. It involves the operational definition of the variables being studied and the hypothetical relationships between those variables.
- The aspect of its pioneering figures refers to the early founders or developers of the concepts or theories used in research. They are individuals who have historically been known for their significant contributions in a particular field and set the foundation for further thinking in that field.
- The theoretical orientation aspect refers to the theory or framework used to guide research and understand the phenomenon being studied. It provides the basis for developing a hypothesis and selecting a suitable method for research.

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- The objectives and targets aspect states the intent and objectives of the research, which includes what the research seeks to achieve and who is the target of the intervention or findings.
- The correlation and respondent aspects refer to the relationship between the variables studied and the population or respondents that are the focus of the research. It includes an analysis of how the variables interact and how the population or respondents are selected for the study.
- The instrument and equipment aspects include measuring instruments and equipment used in research to collect data. This can include questionnaires, tests, software, or equipment necessary for observation or experiments.
- The aspect of approach to the population refers to the strategies used to reach and research the population that is the target of the research. This can involve using a sample or a direct approach to the population.
- The design aspect includes the research design chosen by the researcher, which includes how the variables will be measured, how the data will be collected, and how the design will allow for valid and reliable analysis.
- The field data mining aspect refers to the activities carried out by researchers to collect data from the field, which involves direct observation, interviews, or the use of other instruments in a natural environment.
- The sampling aspect includes the process of selecting and selecting a portion of the population for research, aiming to obtain representative results of the population as a whole.
- The data analysis aspect includes the techniques and procedures used by the researcher to analyze the data collected, which can include descriptive statistics, inferential statistics, or qualitative analysis.
- The validity aspect of the data is related to the quality of the data collected and determines the extent to which the data is reliable and valid to draw conclusions.
- The report writing aspect includes the process of writing and compiling a research report that includes the findings, analysis, and conclusions of the research. This should be done with due regard to academic standards and research ethics.

3. RESULTS

The data collection carried out by the researcher is in the form of 5 actions for each action There are several cycles where this cycle is taken and then the development of each cycle is seen where this development has an effect on the amount of active learning time of students, Penelitian ini terdiri dari beberapa siklus, dengan masing-masing siklus terdiri dari beberapa tindakan. Each cycle was marked by an increase in the percentage of students' active learning time, which showed the effectiveness of the learning modification strategies applied by the researchers. This learning modification was made to accommodate the limitations of physical education facilities in schools, which were initially not eligible for safe and effective athletic learning. This study shows that with the right approach and appropriate modifications, a significant improvement in the quality of learning and student learning outcomes can be obtained, despite the obstacles in physical education facilities in schools. The modifications include adjustments in learning objectives, learning processes, learning materials, learning facilities, and evaluation of learning outcomes.\

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Chart 1. Development of Javelin Throwing Learning Outcomes Graph (action).

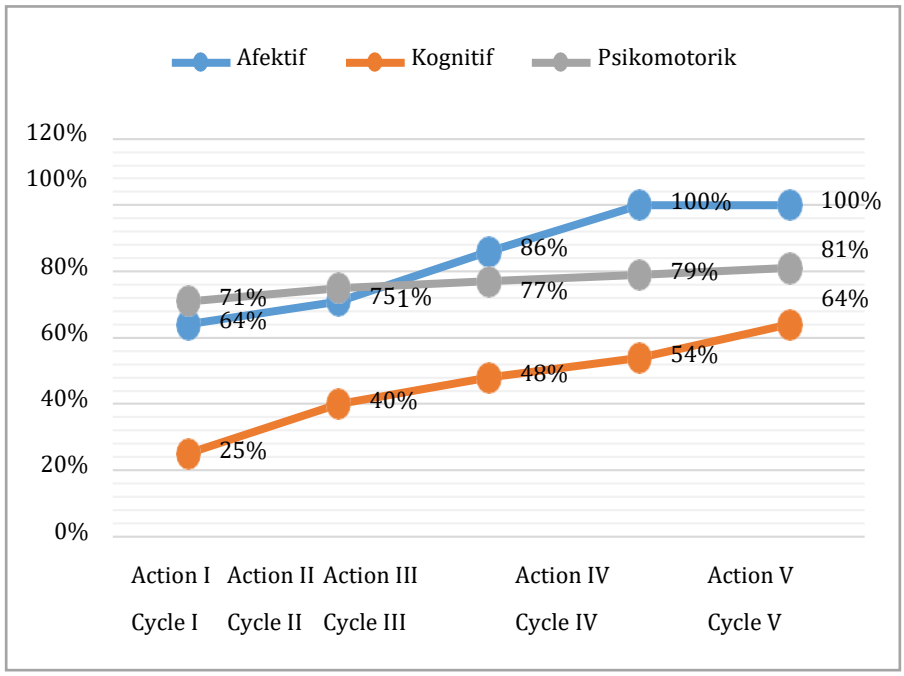

Chart 2. Development of Javelin Throwing Learning Outcomes (Cycle).

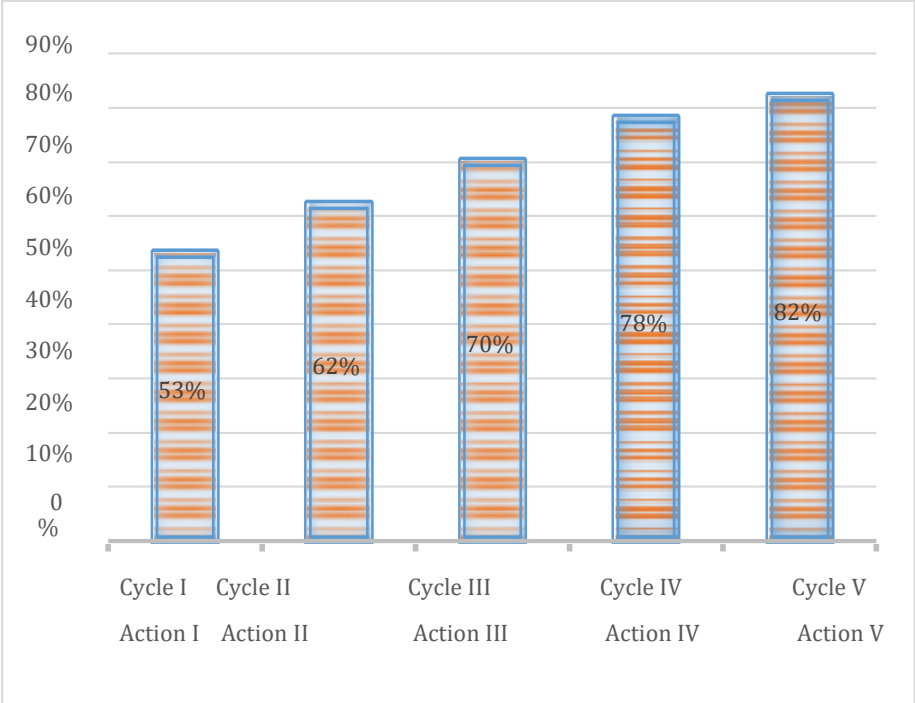

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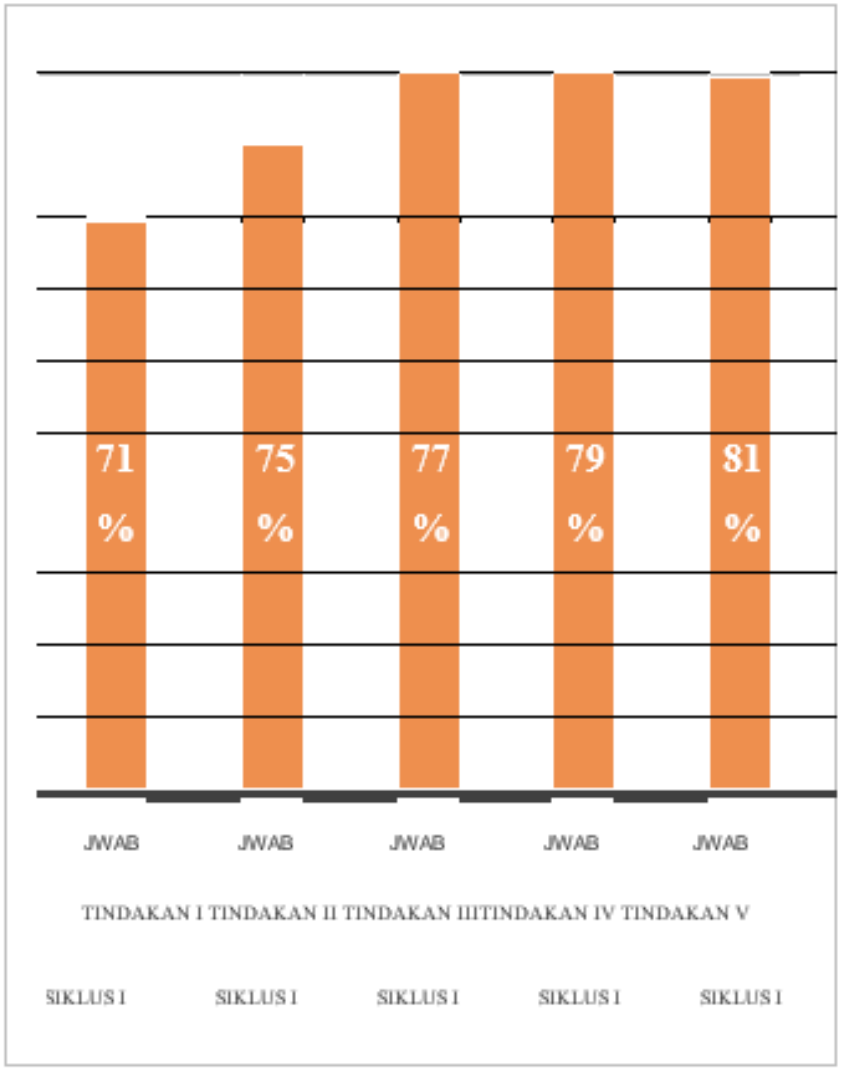
Chart 3. Average development of the presentation of learning outcomes of Javelin Throwing activities.



The findings of this study demonstrate a notable and significant improvement in the active learning time of students during javelin throwing activities at SMA Negeri 13 Bandung. Initially, observations indicated that only 71% of students were actively engaged in the learning process. However, following the implementation of a series of learning modification strategies, this figure increased to 81%, representing a 10% gain in student activity during the instructional period. This increase reflects the effectiveness of the learning interventions, which were designed to enhance student involvement and optimize instructional time in the context of physical education.

The modifications applied were systematically structured and implemented through several learning cycles, with each cycle comprising a sequence of planned actions aimed at addressing specific instructional challenges. Across each cycle, a progressive increase in student participation was observed, reinforcing the idea that active and reflective instructional adjustments can significantly improve engagement in physical activities, particularly in technically demanding skills such as javelin throwing. These results highlight that when learning strategies are aligned with student needs, movement-based goals, and task-oriented instruction, the quality of student engagement improves measurably.

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Furthermore, the study supports the principle that learning time optimization is a key component in improving skill acquisition in physical education. The enhancement of student activity levels not only facilitates better motor learning but also contributes to higher levels of motivation and focus during practice. These findings have practical implications for physical education teachers and coaches, emphasizing the value of responsive, cycle-based instructional design in ensuring that students remain actively engaged throughout the learning process.

4. DISCUSSION

Development Of The Percentage Of Learning Outcomes Of Javelin Throwing Activities

Overall results of field records. Not only student learning outcomes, but there is an initial increase in the number of active learning time of students during javelin throwing activities, only 71% increased to 81% of active students during the learning process of javelin throwing activities using learning modifications. Based on the theory of modification in the context of learning "Modification can be interpreted as an effort to make changes with adjustments both in terms of physical materials (facilities and equipment) and in goals and methods (methods, styles, approaches, rules, and assessments) (Hall, 2013)." Meanwhile, according to (Barr & Tagg, 1995) the components of the learning process of javelin throwing activities can be modified as components of modification of learning objectives, learning processes, learning materials, learning facilities or tools, and evaluation of learning outcomes.

The learning modification carried out in this study is very relevant to the issue which states that modification is an effort to make changes with adjustments both in terms of physical materials (facilities and equipment) as well as learning objectives and methods (Franklin & Peat, 2001). In the context of this study, the modification was made to accommodate the limitations of physical education facilities in schools, which were initially not eligible for safe and effective athletic learning (Benesová, 1990). Based on the theory of learning modification, this study shows that by modifying the components of the learning process, such as learning objectives, learning processes, learning materials, learning facilities, and evaluation of learning outcomes, an improvement in the quality of learning and student learning outcomes can be obtained. This research also emphasizes the importance of a proper methodological approach in research, which is necessary to collect, analyze, and interpret data relevant to the research objectives.

Conceptually, this study proposes the basic concept of action research which emphasizes the importance of reflection in the learning process to increase the consistency of rational actions in carrying out tasks and deepen the understanding of practical conditions of learning. From the aspect of theoretical orientation, this research is based on learning theories that guide the learning modification process. The aspect of the type of knowledge is physical education, which is a very practical field of science and closely related to the health and physical skills of students. The objective and target aspect of this study is to improve students' active learning time and their learning outcomes in javelin throwing activities. The correlation and respondent aspects are related to the relationship between the variables studied and the population that is the focus of the research, namely class X students at SMA 13 Bandung. Aspects of instruments and equipment include measuring instruments and

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equipment used in research, such as observation formats and field notes. The aspect of the approach to the population states the strategy used to reach and research the population that is the target of the research, namely by using cluster sampling techniques.

The design aspect of the study describes how the research is designed to meet the objectives and collect valid and reliable data. The aspect of field data mining is an activity carried out by researchers to collect data from the field, which involves direct observation and interviews. The validity aspect of the data is related to the quality of the data collected and determines the extent to which the data can be relied upon to draw conclusions. The aspect of report writing is the process of compiling a research report that includes findings, analysis, and conclusions.

5. CONCLUSION

The achievement of learning objectives in learning javelin throwing activities, as in the objectives that have been formulated in the basic competencies, overall students can understand and practice the concept of movement patterns of javelin throwing skills and all students have no difficulty in following the learning stages. Thus, the modification of learning javelin throwing activities is suitable for implementation.

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