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The Effect of Active Learning Method on Students' Physical Fitness in Physical Education and Fitness Lectures

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ABSTRACT

The learning methods used in Physical Education and Fitness courses have an important role in improving students' physical fitness. Active Learning Method (ALM) is an approach that emphasizes students' active involvement in the learning process, which has the potential to improve physical fitness more effectively than conventional methods. However, the limited research on the effectiveness of ALM in the context of physical education is the main reason for the need for a more in-depth study. This study aims to analyze the effect of Active Learning Method on students' physical fitness in Physical Education and Fitness courses. Specifically, this study will compare the level of physical fitness of students who take part in learning with ALM and conventional methods. This research uses a quantitative approach with a quasi-experimental design. Physical fitness data will be measured using standard parameters of physical fitness, such as cardiovascular endurance, muscle strength, flexibility, and muscle endurance. The targeted outputs of this research include publications in accredited national journals, Active Learning Method-based learning modules for Physical Education and Fitness lectures, and policy recommendations for educational institutions in adopting more effective learning methods. The results of this study are expected to contribute to improving the quality of physical education learning and significantly improving students' physical fitness.

INTRODUCTION

Physical education and fitness are important aspects in the development of motor skills, physical health and well-being of students (1). In modern education, active learning methods are increasingly being applied to improve student participation and learning outcomes. Active learning method refers to an approach that requires direct involvement of students in the learning process through discussions, experiments, and other physical activities (2). The importance of physical fitness in physical education and fitness courses is the basis for this research (3). With the application of active learning methods, it is expected that students can be more active in moving and engaging in learning activities, thus having a positive impact on their physical fitness. Therefore, this study aims to analyze the effect of active learning method on students' physical fitness in physical education and fitness courses.

Physical fitness is the body's ability to carry out various daily activities without experiencing excessive fatigue, and still have energy reserves to carry out additional activities (4). This fitness consists of several main components, namely cardiorespiratory endurance, muscle strength, muscle endurance, flexibility, and body composition (5).

In the context of physical education, the application of appropriate learning methods is very important to support the improvement of physical fitness (6). One approach that has proven effective is the active learning method, which is a learning approach that emphasizes the active involvement of students in the process of understanding the material (7). This method involves various strategies, such as group discussions, simulations, and project-based learning, and has

been proven to improve concept understanding as well as motor skills in various disciplines, including physical education.

The application of active learning in physical education has a positive impact because it encourages students to be more physically active (8). Physical activities that are structured in the learning process are proven to improve physical fitness, especially in cardiorespiratory endurance and muscle strength (9). In addition, active learning strategies can increase the effectiveness of learning in various fields, including physical education (10).

The urgency of this research is very high considering the actual problem of the declining level of physical fitness among students. Therefore, the application of Active Learning Method is expected to be a solution to increase student participation, motivation, and physical fitness in Physical Education and Fitness lectures. In addition to having a practical impact, the results of this study can also contribute to the development of a more innovative physical education curriculum that emphasizes active student interaction.

RESEARCH METHOD

This research is a quantitative study using a quasi-experiment approach that aims to examine the effect of the application of active learning methods on students' physical fitness. This study involved a population of students who attended Physical Education and Fitness courses at one university, with sample selection using purposive sampling technique. The sample consisted of two groups, namely the experimental group who received learning treatment with active learning methods, and the control group who used conventional methods. Data collection techniques were carried out through several instruments. First, physical fitness tests that use standard measurements such as VO_2 max, push-ups, sit-ups, and flexibility tests. Second, observations were made to analyze student involvement during the lecture process. Third, questionnaires were used to measure student perceptions of the learning methods applied. Data analysis was carried out using descriptive and inferential statistical tests. One of the inferential analyses used was the t-test, which was used to compare the results of physical fitness between the experimental group and the control group. The flow of implementation of this research is divided into three main stages. The preparation stage includes coordination between members of the research team and the division of duties of each member. The implementation stage includes the process of collecting data in the field and analyzing the data that has been obtained. Furthermore, the report preparation stage is carried out through making a complete research report and writing scientific articles as research outputs. The targets of this research include publication in international journals and publication of research report books.

RESULTS AND DISCUSSION

This study aims to analyze the effect of the Active Learning (ALM) method on the physical fitness of students in Physical Education and Fitness courses. Physical fitness measurements were carried out using standard parameters such as cardiorespiratory endurance, muscle strength, flexibility, and muscular endurance. After treatment using the ALM method and the conventional method, the results of physical fitness measurements showed significant differences between the two groups. The experimental group using the Active Learning method showed a more significant increase in cardiorespiratory endurance,

muscle strength, and flexibility compared to the control group using the conventional method. The results of the physical fitness test showed that students who were actively involved in learning using the ALM method moved more and participated in physical activities, which had a positive impact on improving their physical fitness.

Increased Student Participation: The ALM method encourages students to be more active participants in physical activities and group discussions, leading to increased engagement in physical activity. This has been shown to improve their physical fitness parameters, particularly in cardiorespiratory endurance and muscle strength. Benefits of Active Learning: Unlike conventional methods, which tend to prioritize lectures and one-way instruction, ALM encourages students to interact more with the learning materials and their classmates through simulations and physical activities. This provides opportunities for students to move more, which is crucial for improving physical fitness. Flexibility in Learning: The activities carried out in ALM are more varied and touch on various aspects of motor skills, so students not only learn theory but also practice the necessary physical skills. This certainly has an impact on their overall physical fitness.

Lecturer Involvement in Activity Supervision: In the ALM method, lecturers play an active role in guiding and supervising students during physical activities. This ensures that students are not only active, but also perform the exercises with correct techniques, which supports more effective physical fitness improvement. Differences Between Conventional and ALM Methods: Conventional methods emphasize theory and memorization, while ALM emphasizes the application of knowledge through active physical activities. The results of the study indicate that this approach is more effective in improving students' physical fitness, because it prioritizes direct learning experiences. Overall, the results of this study support the use of the Active Learning method as a more effective approach in improving students' physical fitness in Physical Education and Fitness courses. Therefore, educational institutions are advised to adopt this method in the Physical Education curriculum to improve the quality of learning and students' physical fitness.

CONCLUSION

This study aims to analyze the effect of Active Learning Method (ALM) on students' physical fitness in Physical Education and Fitness courses. ALM emphasizes students' active involvement in the learning process and is considered more effective than conventional methods in improving physical fitness. Given the limited research on the effectiveness of ALM in the context of physical education, it is important to conduct this study. The study used a quantitative approach with a quasi-experimental design, and physical fitness measurements were made through standard parameters such as heart-lung endurance, muscle strength, flexibility, and muscle endurance. The research results are targeted to produce publications in accredited national journals, ALM-based learning modules for Physical Education and Fitness lectures, and policy recommendations for educational institutions. The findings of this research are expected to significantly improve the quality of physical education learning and students' physical fitness.

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