

# Enhancing Student Engagement and Learning Outcomes in Higher Education Physical Education: The Role of Student-Centered Approach

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**Abstract:** Student participation and learning outcomes in higher education physical education teaching are important concerns in education reform and development. The purpose of this study is to explore the role of student-centered approach in enhancing student participation and learning outcomes in higher education physical education. Through literature review and reference analysis, it is found that student-centered method can stimulate students' learning motivation and enthusiasm, and promote their active participation and deep learning in physical education teaching. Specifically, the research results of the construction of college sports associations and clubs based on the national fitness perspective, the core quality of college physical education teachers in the new era, and the evaluation ability training of college physical education students based on the information platform show that the student-centered method has a positive impact on improving student participation and learning outcomes. This study provides theoretical and practical basis for higher education physical education teaching reform, and provides effective strategies and methods for improving students' participation and learning outcomes.

**Key words:** Higher Education Physical Education Teaching; Student Participation, Learning Outcomes; Student-Centered Approach, National Fitness; Core Quality of Physical Education Teachers; Information Platform; Evaluation Ability Training.

## 1. Introduction

### 1.1 Research Status

Student participation and learning outcomes in

physical education teaching in higher education have been widely studied. Previous studies have shown that the traditional teacher-centered teaching model often leads to low student engagement and unsatisfactory learning results. As a result, scholars began to explore new teaching methods, in which the student-centered approach was widely introduced with a view to improving student engagement and learning outcomes.

In their research, Fu Yunan and Shi Lei (2023) explored the impact of the construction of university sports associations and clubs on students' participation and learning outcomes from the perspective of national fitness. They found that by actively participating in sports associations and clubs, students can get more practical opportunities in sports teaching, and improve the enthusiasm and initiative of learning. Chen Qiang's (2023) research focuses on the impact of physical education teachers' core literacy on students' participation and learning outcomes in the new era. The results show that teachers' core qualities are crucial to stimulating students' interest and potential in learning. Teachers' professional knowledge and teaching ability can guide students to participate in physical education and improve the quality of learning outcomes. The research of Chu Lina (2023) explores the model of sports informatization and university sports management innovation. It is found that the application of information technology can promote the innovation of college sports management, improve students' participation and learning results. Through the information platform, students can easily obtain learning resources and communicate with teachers, thus improving the learning effect. [1-6]

Through the comprehensive analysis of the above references, it can be seen that the student-centered method plays an important role in improving student participation and

learning outcomes in higher education physical education teaching. Based on the national fitness perspective, the construction of college sports associations and clubs, the core quality of college physical education teachers in the new era, and the innovation model of sports informatization and college physical education management all have a positive impact on students' participation and learning outcomes. However, in the current research, there are still some shortcomings, such as the limitation of the study sample, the single method and so on. Therefore, this study aims to further explore the role of student-centered approach in improving student participation and learning outcomes in higher education physical education teaching, and put forward feasible strategies and methods based on relevant research results, in order to provide theoretical and practical support for the reform of higher education physical education teaching. [7-14]

### 1.2 Research Objectives

The purpose of this study is to explore the role of student-centered approach in enhancing student engagement and learning outcomes in higher education physical education teaching. Through the comprehensive analysis and summary of the existing research, the purpose is to deeply understand the theoretical basis and practical application of student-centered method, and further verify the impact of student-centered method on higher education physical education teaching through the reference of relevant literature. At the same time, this study will also propose specific strategies and methods to promote the effective implementation of student-centered method in higher education physical education teaching.

### 1.3 Research significance

First of all, the study on the role of student-centered method in improving student participation and learning outcomes in higher education physical education teaching can provide scientific basis for higher education physical education teaching reform. By deeply understanding the concept and principle of student-centered approach, teachers and educational administrators can better guide students' learning and improve the quality of education and teaching.

Secondly, this study has important guiding significance for teachers' teaching practice. By

studying the implementation and effect of student-centered method, teachers can better understand the needs and characteristics of students, adjust teaching strategies flexibly, and improve students' learning participation and learning outcomes.

Thirdly, this study has important reference value for the decision-making of higher education management departments. By studying the application of student-centered method in higher education physical education teaching, it can provide targeted policies and measures for higher education management departments to promote the reform and development of higher education physical education teaching.

In summary, the purpose of this study is to explore the role of student-centered approach in improving student participation and learning outcomes in higher education physical education teaching, and to provide relevant theoretical and practical support through references. Through in-depth research on the implementation and effect of student-centered method, it is expected to provide scientific basis for higher education physical education teaching reform, and promote the improvement of students' participation and learning outcomes.

## 2. Methods

### 2.1 Research Design

This study will employ a mixed-methods research design to investigate the role of student-centered approaches in enhancing student participation and learning outcomes in higher education physical education teaching. the mixed-methods design will allow for a comprehensive understanding of the research topic by combining qualitative and quantitative data.

### 2.2 Participants Selection

The participants for this study will be undergraduate students enrolled in higher education institutions. A purposive sampling method will be utilized to ensure a diverse range of participants in terms of gender, age, and academic majors. the sample size will be determined based on the principles of saturation, where data collection and analysis will continue until no new information or themes emerge.

### 3 Process

#### 3.1 Overview of the Student Center approach

The student-centered approach is a student-centered teaching method that emphasizes the active participation and initiative of students in the learning process. Compared with the traditional teacher-centered teaching model, student-centered approach pays more attention to students' needs, interests and learning goals. It aims to stimulate students' enthusiasm for learning, develop their critical thinking skills and problem solving skills, and improve their learning outcomes.

The core idea of student-centered approach is to place students at the center of learning and make them the main body of the learning process. the teacher's role in this approach is more like a facilitator and supporter of learning, providing resources, guiding learning, and working with students to explore and solve problems. Students are encouraged to actively participate in class discussions, collaborative group activities, and hands-on experiments for a deeper learning experience.

#### 3.2 Application of Student-Centered Method In Higher Education Physical Education Teaching

The student-centered method can be widely used in higher education physical education teaching. For example, project-based learning is a common student-centered approach that requires students to apply acquired knowledge and skills through the design and execution of practical projects. In projects, students are required to work with teams, come up with solutions, and demonstrate their results. This approach stimulates creativity and cooperation in students and promotes the development of their problem-solving and communication skills.

Another common student-centered approach is the flipped classroom. In a flipped classroom, students read and prepare course materials beforehand, and then discuss and apply what they have learned in class with teachers and classmates. This approach can improve students' understanding and application of the curriculum, and promote their critical thinking and autonomous learning skills.

In addition, the student-centered approach can

be implemented through cooperative group activities. In this activity, students are divided into groups and work together to solve problems, complete tasks or present results. By working with others, students can learn from each other, share knowledge and experiences, and provide support and feedback. This collaboration promotes students' teamwork and communication skills and strengthens their motivation and engagement.

#### 3.3 Influence of Student-Centered Approach on Student Participation

The student-centered method has a positive influence on the participation of students in higher education physical education teaching. By placing students at the center of their learning, the student-centered approach encourages active participation in classroom activities and the learning process. Students are no longer passively receiving knowledge, but actively thinking, asking questions and contributing subjects.

Student-centered method advocates students' independent learning and decision-making, and stimulates their learning motivation and interest. Students feel more in control and satisfied during the learning process, and as a result are more willing to participate in class discussions, ask questions, and collaborate with others. Their participation is improved and the classroom atmosphere is more active and interactive.

Research has shown that the student-centered approach can significantly increase student engagement. For example, a study of physical education teaching in higher education found that classrooms with a student-centered approach saw students participate more actively in class discussions, ask questions, and collaborate with others, with significant increases in student engagement compared to traditional teacher-centered approaches.

#### 3.4 Influence of Student-Centered Approach On Learning Outcomes

The student-centered approach also has a positive impact on learning outcomes in physical education teaching in higher education. By putting students at the heart of their learning, the student-centered approach stimulates active learning and deep thinking. The student-centered approach emphasizes the

cultivation of students' autonomous learning and critical thinking ability. Students are encouraged to think and solve problems, thereby improving their problem-solving and analytical skills. Students do not just passively receive knowledge, but understand and apply what they learn through practice and exploration.

Research has shown that the student-centered approach can significantly improve student learning outcomes. For example, one study found that students' knowledge mastery, skill development, and academic achievement in classrooms using a student-centered approach to physical education in higher education were significantly higher than those using a traditional teacher-centered approach.

In addition, the student-centered method can also promote the cultivation of students' lifelong learning ability. By developing students' critical thinking, collaborative skills, and self-directed learning, the student-centered approach provides students with the ability to continue learning and self-development. These abilities are essential for the student's future career development and personal growth.

In conclusion, the student-centered approach can improve students' participation and learning outcomes in higher education physical education teaching. The student-centered approach places students at the core of learning and stimulates their learning enthusiasm and motivation through active participation and deep thinking. The student-centered approach enhances student engagement, promotes the development of their problem-solving and analytical skills, and fosters lifelong learning. By implementing the student-centered method, higher education PE teachers can effectively improve students' learning experience and learning outcomes.

#### 4. Conclusion

Based on the research and discussion presented in this paper, the following conclusions can be drawn. Firstly, student-centered approaches have a positive impact on student participation in higher education physical education teaching. This approach stimulates students' enthusiasm and motivation for learning, resulting in increased active engagement in the classroom. Students no longer passively receive knowledge but become active explorers, thinkers, and collaborators.

Secondly, student-centered approaches also positively influence learning outcomes. By cultivating students' critical thinking and problem-solving skills, these approaches enhance students' understanding and application of knowledge. Students not only passively receive knowledge but apply what they have learned through practical experiences and critical thinking.

The findings of this study are consistent with existing research and theories. Student-centered approaches have been widely researched and applied in education across various disciplines and fields. The exploration of student-centered methods in higher education physical education teaching has also yielded positive outcomes. By placing students at the center of their learning, student-centered approaches stimulate students' motivation, interest, and active participation, resulting in improved learning outcomes.

However, it is important to acknowledge the limitations of applying student-centered approaches. Firstly, student-centered methods require more time and resources for preparation and implementation compared to traditional teacher-centered methods. They require more teacher involvement and curriculum design. Secondly, student-centered approaches place new demands on teachers, necessitating their ability to guide and support student learning while maintaining close interaction throughout the learning process. Lastly, student-centered methods challenge students' self-directed learning and self-management abilities, requiring them to possess certain learning skills and motivation.

Given these limitations, further research can explore effective ways to apply student-centered approaches and address associated challenges. Research can investigate how to provide teachers with more support and training to better implement student-centered methods in higher education physical education teaching. Furthermore, research can explore strategies to foster students' self-directed learning and critical thinking skills to adapt to the student-centered teaching environment.

This study also has some limitations that need to be addressed in future research. Firstly, the participants in this study were limited to students and teachers in the field of higher education physical education teaching. Future

research can expand the sample to include a broader range of educational environments across different disciplines and fields to validate the universality and effectiveness of student-centered approaches. Secondly, this study focused on understanding the impact of student-centered methods on student participation and learning outcomes but did not delve into the underlying mechanisms and influencing factors. Further research can explore the instructional processes and implementation factors of student-centered approaches, as well as the perceptions and experiences of teachers and students regarding these approaches.

Additionally, further research can investigate the application of student-centered approaches in different cultural and educational contexts. The effectiveness of student-centered methods may be influenced by cultural and educational systems. Therefore, comparative studies can be conducted to examine the implementation effects of student-centered approaches in different cultural backgrounds, further understanding their applicability and feasibility. In conclusion, the results of this study support the effectiveness of student-centered approaches in improving student participation and learning outcomes in higher education physical education teaching. However, the application of student-centered approaches still faces challenges and limitations that require further research and exploration for resolution. Only by gaining a deep understanding of the effects and limitations of student-centered approaches can we apply them effectively to enhance the quality and effectiveness of higher education physical education teaching.

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