

Strategies for Creating Authentic Situations in Physical Education Instruction with an Emphasis on Literacy—Take the Example of a Basketball 'Screen and Roll' Drill in High School

Huang Liepeng^{1,a}, Zhong Rui¹, Shen Lingling², Zhou Jiandong³

¹Chengdu High School Affiliated to Beijing International Studies University, Chengdu, 610041, China

²Yongfeng Primary School of Qionglai, Chengdu, China

³Jincheng Primary School of Chengdu Hi-Tech Zone, Chengdu, China

^a458554302@qq.com

Abstract: The concept of "situation" is emphasized multiple times in the Physical Education and Health Curriculum Standards for Compulsory Education (2022 edition). It is mentioned that teaching situations should be realistic and complex in order to enhance students' analytical and problem-solving abilities. This paper focuses on constructing authentic situations based on real-life, problem-oriented, and application-oriented contexts. The strategies proposed include using real-life situations to stimulate active learning, setting up problem-solving situations to facilitate deep thinking, and creating application-oriented situations to develop students' abilities. These strategies aim to promote subject-specific literacy.

Keywords: Physical Education, Authentic Situations, Creation Strategy for Physical Education Teaching

1. Introduction

The 2022 edition of the Physical Education and Health Curriculum Standards for Compulsory Education emphasizes the importance of creating authentic teaching situations that allows students to experience rich and meaningful movement activities in realistic and complex contexts. Therefore, it is crucial to design authentic situations and implement relevant strategies in physical education instruction. This paper utilizes a basketball lesson on "screening and collaboration" as an example to explore how authentic situations can be created and strategies implemented in physical education instruction.

2. The Value of Creating Authentic Situations in Physical Education Instruction

2.1 Moving from abstract to concrete through authentic situations

In the daily process of physical education instruction, teachers often design situations that are detached from students' real-life experiences and lack authenticity, thus hindering students' motivation and deep understanding. Considering the reality, problems, and application situations in the authentic situations, students can realize the relevance of the content to their own lives, leading to meaningful learning experiences that stimulate intrinsic motivation and immersion. This type of situation helps bridge the gap between the subject matter and the students, enabling the transition from abstract to concrete learning.

2.2 From singularity to diversity learning through authentic situations

Issues such as complexity, superficiality, bias, and fragmentation in physical education instruction stem from the single-dimensional, fragmented, and incomplete nature of the content.[1] Traditional knowledge and skill-based teaching fail to capture students' interest and provide opportunities for application and practice. Authentic situations allow students to discover, analyze, and solve problems through the process of encountering uncertainties while applying knowledge and skills in the context of

"learning, practicing, and competing." Therefore, authentic situations of physical education are expected to get rid of single teaching and move towards diversification, enrichment, and systematic. This promotes continuous exploration, experience, and reinforcement of knowledge and skills, leading to a more integrated and comprehensive learning experience.

2.3 From learning to independent exploration through authentic situations

Teaching activities should not only focus on students' current abilities but also guide their future development. While the sequence of "learning to learn" and "learning to master" may be reversed, they reflect different educational perspectives. The former emphasizes the mastery of knowledge and skills, while the latter encourages students to actively discover, observe, experience, and perceive, fostering the development of comprehensive abilities. In the realistic, problem-oriented, and application-oriented dimensions of authentic situations, creating a conducive environment for independent, in-depth learning is crucial. Emphasizing students' involvement in the process of authentic situations through multi-sensory learning experiences facilitates knowledge generation, emotional and cognitive deepening, and the transformation from learning knowledge and skills to mastering rules and methods.

3. Dimensions of Creating Authentic Situations in Physical Education Instruction with a Focus on Literacy

Authentic situations in physical education instruction aim to promote students' core literacy, encompassing their values, essential qualities, and key abilities. The main dimensions of authentic situations include real-life contexts, problem-oriented contexts, and application-oriented contexts. (Figure 1)

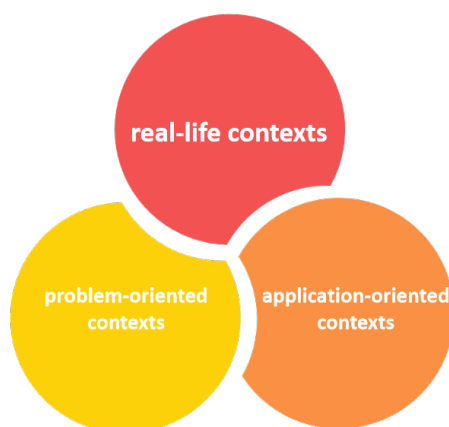


Figure 1: Three Dimensions of Authentic Situations in Physical Education Instruction

3.1 Highlighting the characteristics of the project in real-life contexts

The realistic situation refers to the scene in the teaching situation mainly from the student's daily life and learning environment, which is close to the authentic situations and existing experience.[2] It mainly includes three dimensions: daily life context, discipline authentic situations, and character environmental situation. It is mainly reflected in the connection between daily life and basketball projects, the experience and methods of the existing basketball training and competitions in the discipline of sports and sports, and the specific venues, equipment, players, and members of the basketball, and specific venues, equipment, players and members in basketball. Personal character and abilities environmental situation.

3.2 Setting problem-solving situations for students

The problem situation is an authentic situations that is based on students as the main body to improve students' active thinking and help the problem solve. It mainly includes questioning the transition from new and old knowledge and skills, the gap between cognition and use, and the key

points for the formation of capabilities. Based on the above three problems, guide the problems, analyze and solve problems in the process of football learning, so that students can solve key ability in the real problem situation to solve the problem and cultivate students' thinking ability.

3.3 Creating diverse and varied application contexts

The application situation is to learn the situation to achieve the consolidation, improvement, and migration of knowledge and skills, and it is also an important part of knowledge and skills into key abilities. It mainly includes three aspects: the application situation of knowledge and skills, the application situation of knowledge and skills migration, and the application situation of knowledge and skills innovation. The formation and development of the migration ability of future life.

4. The Strategies for Creating Authentic Situations in Competency-Oriented Physical Education Teaching

4.1 Inspiring Student Active Learning through Real Situations

The students' learning initiative depends on whether the knowledge and skills they learn resonate with their existing experiences. Especially in the early stages of teaching, it is important to create situations that are relevant to students' real lives in order to promote their active learning. When selecting everyday life situations, teachers should combine the content of the textbook with realistic materials related to basketball to establish a connection between the created situations and students' life experiences. This will stimulate students' interest and initiative in learning. The abilities required for cooperation, judgment, and decision-making in the basketball tactic of "screening and coordination" can be taught by connecting them to teamwork and decision-making scenarios in daily life.

Moreover, when selecting subject-specific situations, teachers should consider the knowledge, experience, and methods students have already acquired as the foundation for creating real situations. By combining the characteristics of basketball, new knowledge and skills can be perceived and transferred as a whole.

At the level of basketball practice, a comprehensive understanding and experience of the "screening and coordination" tactic can be achieved through passing and movement positioning. Athletes need to grasp how to make use of teammates' positions and spatial advantages on the court, rendering the defending players ineffective, and thus executing a brilliant coordination. At the inter-sport level, the observation, judgment, decision-making, and collaboration skills required in the "screening" tactic of soccer can be integrated into basketball's "two vs. one" situation and volleyball's passing and setting combination. Through such skill transfer and application, athletes' overall qualities and technical levels can be improved, leading to better results in competitions.

When teaching basketball, the setting of characters and environmental situations should fully consider students' individual differences and external material limitations, such as gender, physical fitness, equipment, and venue conditions. To improve students' learning effectiveness, real situations should be set accordingly based on these differences. For example, in teaching the "screening and coordination" tactic in basketball, the teaching process can be divided into several stages: first, through individual ball-handling practice and finding open positions, students gradually learn the basic skills of passing and receiving. Next, obstacles can be introduced to increase the difficulty in passing and receiving exercises between two players. Subsequently, defensive exercises can be conducted, including moving defense by two players with certain area limitations to enhance the authenticity of the practice. Based on these stages, defensive drills and full-court games can be introduced to gradually improve students' technical levels and tactical awareness. Additionally, drills involving gender and numerical differences can be added to enhance students' adaptability and resilience.

4.2 Setting Contextualized Problem Situations to Promote Deep Thinking

According to the teaching tasks, students' cognitive abilities, and the interaction between teachers and students, teachers should purposefully set problem situations to encourage students to think deeply and cultivate key abilities in subject development.^[3] In basketball teaching, transitional problem situations can help students transition from what they already know to the unknown. Teachers should focus on the transitional knowledge and skills between the old and new, helping students establish the connection between them. To achieve this, problems can be designed to compare the similarities and

differences between new and old knowledge and skills, allowing students to grasp the transitional points. For example, the main difference between basketball passing-receiving combinations and the "screening and coordination" tactic is that the purpose of "screening" is to evade frontal defense. Based on this difference, a problem can be designed: when two players are advancing on the court, facing a defender head-on, how can they use passing-receiving combinations to evade the defense? The teacher's problem design should consider students' cognitive abilities and thinking levels in order to promote deep thinking. Through the design of transitional problem situations, teachers can help students achieve a deep understanding of the connection between different basketball skills, improving their subject development abilities.

In addition to transitional problem situations, intermittent problem situations are also important for student learning. Despite having certain learning experiences, there may still be delays in operational aspects. In such situations, teachers should deliberately pose questions to establish a bridge between old and new knowledge and skills. Teachers can start from the perspective of solving a specific problem, emphasizing the understanding and mastery of new knowledge and skills. For example, in basketball teaching, teachers can ask, "How can we effectively apply the 'screening and coordination' tactic in a game?" This question will help students understand and master the knowledge and skills related to setting screens, including positioning, timing, intensity, and angles. At the same time, teachers can guide students to think about problem-solving strategies, such as how to observe and judge the defenders' movements during a game and how to cooperate with teammates. Through such problem design, teachers can help students better understand and master basketball skills, promoting their subject development.

In the learning process, key problem situations are crucial for helping students understand and master knowledge and skills. In such situations, students need to summarize and generalize the newly learned knowledge and skills to reach general and regular conclusions. Teachers should focus on key points related to specific knowledge and skills when designing problems, helping students move from sensory cognition and experience towards rational abstraction and summarization. For example, in basketball teaching, key problem situations may involve tactical analysis and summarization. Teachers can ask, "How can we quickly counterattack based on the opponent's defense in a game?" This question requires students to apply their previously learned knowledge and skills, as well as extract general rules and conclusions from their sensory cognition and experience. Teachers can guide students to think and summarize, such as identifying situations that call for quick counterattacks, how to anticipate opponents' defensive intentions during a game, and how to capitalize on opponents' mistakes. Through this type of problem design, teachers can promote students' rational thinking and knowledge summarization, helping them better master basketball skills and enhance their subject development.

4.3 Creating Application Situations to Achieve Student Skill Generation

In application situations, teachers need to combine the characteristics of the project to help students understand, transfer, and innovatively apply new knowledge, thereby enhancing their abilities and skill generation.[4]

In the understanding context of knowledge and skills, it is important to guide students in generalizing and summarizing, deepening their understanding and mastery of knowledge. In this process, teachers can start from students' learning experiences, such as their perceptions of new knowledge, problems solved, and scenarios where knowledge can be applied. This further promotes students' cognition and cultivates their application awareness. For example, in a 3 vs. 2 basketball game situation, through tactical board exercises and post-match summaries, teachers can guide students to discuss methods and strategies for handling situations when outnumbered, as well as evaluating the frequency, court areas, and effectiveness of employing the "screening and coordination" tactic in game situations.

In the transfer and application context of knowledge and skills, students are encouraged to apply the basketball knowledge and skills they have already mastered to new situations, enabling them to reprocess and generalize new knowledge. This transfer and application include applying newly acquired knowledge and skills to different situations, as well as making progress in the comprehensive and flexible use of knowledge and skills. In the teaching process of the "screening and coordination" tactic in basketball, students can practice tactics and running positions using the tactical board, and then apply them in real game scenarios. Additionally, students can combine their mastery of ground passing and shoulder passing with "screening and coordination" in different court areas.

In the innovative application context of knowledge and skills, students utilize their acquired sports knowledge, skills, and experiences to generate new knowledge in new situations. These situations are often created based on the characteristics of different sports projects and real-life scenarios.

5. Conclusion

Creating authentic situations in physical education instruction is of great value in promoting students' understanding, skills, and overall literacy development. By employing real-life contexts, problem-solving situations, and application-oriented contexts, teachers can enhance students' motivation, foster critical thinking, and facilitate the transfer of knowledge and skills. These strategies contribute to the realization of subject-specific literacy in physical education instruction.

References

- [1] Zhang J. *Research on the Situation Teaching Mode of Primary School Physical Education under the Concept of "Consistency of Teaching, Learning and Evaluation"*[J]. *Frontiers in Educational Research*, 2021, 4. 0(10. 0).
- [2] Abdulla Azeema, Whipp Peter R, Teo Timothy. *Teaching physical education in 'paradise': Activity levels, lesson context and barriers to quality implementation* [J]. *European Physical Education Review*, 2022, 28(1).
- [3] Camila Rinaldi Bisconsini, Amauri Aparecido Bássoli de Oliveira. *Possibilities of Approaching. The School Scenario in Physical Education Initial Teaching Training* [J]. *Journal of Physical Education/Revista da Educação Física*, 2019, 12(30).
- [4] Xiuye Xie, Weidong Li, Huanyu Li. *Situated Game Teaching through Set Plays: A Proposed Curricular Model to Teaching Sports in Physical Education* [J]. *Journal of Teaching in Physical Education*, 2018, 4(37).