

The Reform of College Physical Education Teaching Methods from the Perspective of Cognitive Psychology

Han Liang

Kyungnam University, Masanhappo-gu, Changwon-si, Gyeongsangnam-do, 51767, South Korea

Keywords: Cognitive psychology, College physical education, Teaching method

Abstract: This paper examines the transition between the media in the pedagogical process and the knowledge process in a physics college from the perspective of psychological theory. Physical education is an important part of higher education and training and plays a significant role in student ability and physical fitness. The development of physical activity can increase students' interest in life. Now, teaching and learning changes are further supported, and the general ability of students has a higher need in the history of good education. Psychology-based physical education in colleges and universities is a new teaching method that is replacing old teaching methods and is being used to improve teaching texts from the perspective of mental health students. However, if we want to highlight China's long-term spiritual perspective and its positive and tangible role in educational reform, we must start with a series of observations, inquiries, and data to discuss it. The purpose and importance of developing students' abilities to improve student learning.

1. Introduction

Cognitive psychology refers to the study of human cognitive process from the perspective of information processing, aiming to reveal the essence of how people solve problems through learning, storing and extracting knowledge. Cognitive psychology divides sports knowledge into declarative knowledge including concepts and laws and procedural knowledge including sports skills, psychological skills and sports cognitive strategies[1]. Cognitive psychology has brought a lot of enlightenment to the reform of physical education in colleges and universities. It has achieved the in-depth penetration of modern teaching concepts such as student-centered, cognitive self-construction, and enhanced migration. It allows students to learn sports declarative knowledge and procedural knowledge, and at the same time, transform them into sports ability, so as to achieve the three-dimensional teaching goal as soon as possible. Based on the classification of sports knowledge in cognitive psychology, this paper discusses the reform of college sports teaching methods, which is not only conducive to enriching the research system of college sports teaching methods, but also conducive to the reform and practice of college sports teaching methods[2].

2. Classification of Sports Knowledge in the Dimension of Cognitive Psychology

Modern psychology divides knowledge into three groups: declarative knowledge, process

knowledge, and practical knowledge. The importance of these skill assignments is that they can guide the learning of different types of knowledge as well as the teaching of different types of knowledge. It is important for teachers to practice using teaching methods. In the field of cognition, the distribution of knowledge is the result of learning and teaching. As the main goal of physical education and training, we use the classification system of cognitive psychology to classify physical knowledge of exercise in the dissemination of knowledge and knowledge processes. In sports science, the concepts and laws that constitute the basic theoretical knowledge of sports are declarative knowledge, which is used to answer the “what” of the essence of sports[3]. Such as the concept, characteristics and laws of sports. When students can store and accurately extract these knowledge through memory, it means that learners have acquired sports declarative knowledge. The sports procedural knowledge refers to the operational knowledge about “how to do” and “how to do” that students have, and is the specific application and operation of sports declarative knowledge. At the same time, the procedural knowledge of sports is divided into action skills, mental skills and sports cognition. Sports skills are a kind of motor skills, which are acquired by learning. The classification of specific sports knowledge is shown in Figure 1:

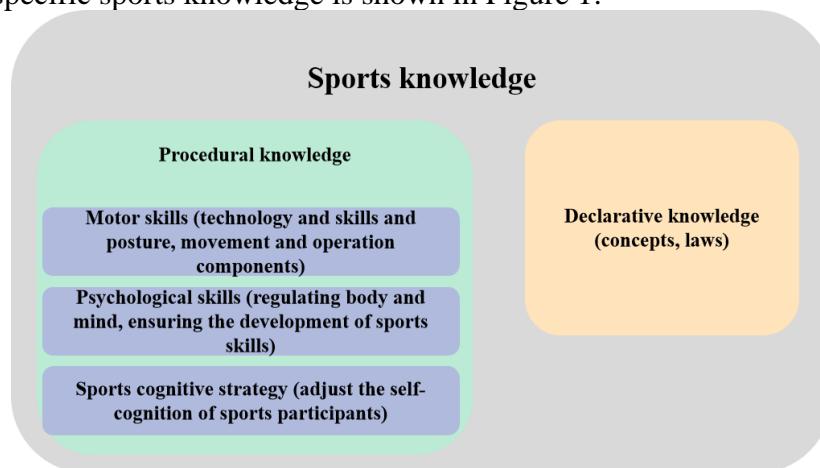


Figure 1: Classification of Sports Knowledge

The above classification of knowledge shows the essential relationship between knowledge and ability. Only when sports knowledge is transformed into sports ability can sports teaching objectives be achieved. How to transform sports knowledge into sports ability? We think we should first have a deep understanding of the classification of sports knowledge; Secondly, we should carry out teaching design according to the types of sports knowledge, internalize the sports knowledge taught to students into their corresponding sports abilities, that is, the selection and application process of teaching methods. Since the goal of sports teaching is to cultivate students' sports ability, we must first have a deep understanding of sports ability, and then study the application of sports teaching methods according to the training of sports ability, so as to reflect the effectiveness of the application of teaching methods[4].

3. Sports Ability in the Dimension of Cognitive Psychology

3.1 Meaning and Content of Sports Ability

The ability of cognitive psychology refers to the psychological characteristics that affect the efficiency of behavior and ensure the smooth progress of behavior, including general ability, special ability (ability of learning and learning in professional field) and creativity. Physical education ability refers to the ability of students to learn in professional fields that can cause students to

change and promote students' growth through physical education teaching. Domestic scholars believe that sports ability is a special ability, which is a combination of physical and mental quality composed of individual intelligence, sports knowledge, sports technology and skills, and is the ability of people to independently and scientifically engage in physical exercise and physical activities. According to the definition of foreign scholar NASPE, sports ability mainly includes the following aspects: (1) the growth of sports knowledge and sports skills; (2) the application ability of sports knowledge and sports principles; (3) the improvement of physical and mental health; (4) the ability of competition and cooperation[5].

3.2 The Essence of Sports Ability in the Dimension of Cognitive Psychology

By analyzing the basic relationship between knowledge and ability, modern cognitive psychology interprets ability with knowledge and believes that different types of knowledge are the basic elements of ability. Therefore, sports ability as a type of ability can also be explained by knowledge.

(1) Students' sports ability is essentially a problem-solving ability

The process of sports ability training is essentially a process of problem-solving ability. Because the formation process of sports ability can reflect the three basic characteristics of the goal orientation, the decomposition of sub-goals and the choice of solutions in the problem-solving process. This view has also been verified by Chinese scholar Professor Zhou Dengshong. He has compared and analyzed the process of sports ability cultivation and problem solving, and concluded that students have sports ability, and also have the ability to solve sports problems[6].

(2) Physical ability is the labor result acquired by students

According to Pavlov's classical conditioned reflex theory, "sports skills refer to the ability of human body to master and effectively complete special actions in sports, which is a complex, interlocking and proprioceptive motor conditioned reflex based on acquired ability"; The essence of motor skill learning is more regarded as the cognitive process of operational knowledge and the conscious cognitive activity of the sports subject. The process of a sports skill from initial learning to automatic power shaping, then from mastering a simple skill to developing a series of complex skills, until finally forming a high-level special sports ability, usually involves complex transformation. On the other hand, the acquired sports skills are the labor results obtained by people taking natural resources and social resources including themselves as labor materials and taking people themselves as labor objects. In modern society, except for human instinct activities, consumption activities, hedonic activities and leisure activities, all human activities are labor. In this context, we believe that sports ability is the "labor result" obtained by students through learning sports skills[7].

4. Reform of Physical Education Teaching Methods in Colleges and Universities from the Perspective of Cognitive Psychology

The main goal of the Sports College is to develop students' ideas about sports for life and to train students to solve practical problems. From the point of view of mental psychology, the following should be done in the reform of teaching physical education.

4.1 Thoughts on the Reform of Physical Education Teaching Methods

Physical activity is a good way to teach. It will constantly change as new sports and new skills emerge. It is a teaching principle to change the concept of thinking, emphasize the important work of students, and develop students' interest in learning. Therefore, college physical education

teachers are encouraged to pay attention to the emotions of students, teach according to their interests, use modern teaching methods, and actively participate in student sports[8].

4.2 Skill Training

Colleges and universities in the dimension of mental thinking should pay attention to physical exercise skills quickly, teach practice, teach responsible daily physical exercise, and teach extended according to the law of wisdom. Those. The five goals of teaching physical education included in the revised curriculum should be clarified by reforming pedagogical activities, focusing on intellectual thinking, improving students' physical abilities, and using energy.

4.3 Types of College Sports Knowledge

Knowledge of physical exercise is an important basis for choosing and implementing physical exercise teaching methods. The type of physical education knowledge required as a leader in physical education reform. For example, the intellectual type of knowledge should choose the language of physical exercise as the main model, while the knowledge function of physical exercise should choose the language based on physical training as the main model. Only by using changes in teaching physical education as a type of physical education knowledge can students' physical education knowledge become a real goal of physical education reform, their physical education capacity[9].

4.4 Highlight the Subjectivity of College Students

The dimension of cognitive psychology has put forward new ideas for the reform of physical education in colleges and universities. Giving full play to students' main body status is the basis of teaching. As the object of education, college students must be analyzed from their thoughts, with the goal of giving full play to their initiative and enthusiasm. Only by deeply understanding knowledge, being good at using knowledge and respecting students' differences can physical education be properly applied to every student. Under the guidance of teachers, students can actively experience the fun and value of sports, fully develop their personality and creative thinking ability, and consciously strengthen the basic physical exercise and sports ability training, so as to improve their ability to accept sports knowledge and skills information processing[10].

5. Conclusion

The reform of college physical education should incorporate the theory of mental thinking, follow the reform of college physical education, study the role and purpose of education from a psychological perspective, study sports and the needs of students, and be based on it about the important role of college students. In addition, measures of mental intelligence continue to provide many of the best ideas for educational reform. Education must continue to expand, innovate, change mindsets, do good teaching and learning, improve teaching methods and procedures, conduct effective exercises, and support the improvement of student development.

References

- [1] Zhu, W. (2021). *Research on the blended teaching mode reform of university physical education curriculum based on the integration of 5g cloud computing and multimedia*. Hindawi Limited, 15(3), 15-19.
- [2] Yuan, M. (2021). *Research on the influence of network distance teaching on the reform of college physical education*. *Journal of Physics: Conference Series*, 1915(4), 042055 (5pp).

- [3] Wu, X. (2022). *Research on the reform of ideological and political teaching evaluation method of college english course based on "online and offline" teaching*. *Journal of Higher Education Research*, 3(1), 87-90.
- [4] Zeng, W, Liu, Y, Li, R, & Zeng, Z. (2021). *Research on the application of big data in the reform of college education mode-taking sports as an example*. *CIPAE 2021: 2021 2nd International Conference on Computers, Information Processing and Advanced Education*, 59(1), 89-92.
- [5] Yang, J. (2021). *Research on the reform of physical education from the perspective of health communication*. *Clausius Scientific Press*, 9(4), 78-81.
- [6] Teng, S, Lian, Z, & Jiang, M. (2021). *Research on the application of flipped classroom teaching in college english from the perspective of mooc based on wechat public platform*. *Journal of Physics: Conference Series*, 1992(2), 022109.
- [7] Thanon, P, Xia, Z, & Xun, Y. (2021). *Research on the balance of university education reform from the perspective of supply-side reform*. *Revista De Cercetare Si Interventie Sociala*, 72(3), 77-92.
- [8] Yan, C. (2021). *Innovative research on german education teaching mode in colleges and universities from the perspective of bd*. *Journal of Physics: Conference Series*, 1852(3), 032006 (7pp).
- [9] Li, Z. (2021). *College Physical Education Teaching Reform under the Background of Sunshine Sports*. *IPEC 2021: 2021 2nd Asia-Pacific Conference on Image Processing, Electronics and Computers*, 89(8), 96-98.
- [10] Yang, L. (2021). *Research on the utilization of computer network information resources and the reform of college physical education*. *Journal of Physics: Conference Series*, 1915(3), 032060 (5pp).