

## *Factors Affecting Teaching Ability of Physical Education Teacher Trainees and Development Strategies*

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**Keywords:** Physical education; higher education; teaching skills; influencing factors; development strategies

**Abstract:** Physical education teacher trainees are the main source of physical education teachers in China, and the training mode and educational philosophy of physical education teacher trainees in colleges and universities affect the personal ability of future physical education teachers. Influenced by the "disembodied education" model, education and teaching are regarded as a "higher-level process" that promotes mental development and is not related to "lower-level processes" such as physical experience, bodily sensation and sensory-motor system. It is not related to the "lower processes" such as bodily experience, body sensation, and sensory-motor system. This concept of separation of mind and body is one of the important factors that affect the development of practical ability of physical education teacher trainees. The research suggests that: universities should improve the special training sites for physical education teaching skills and optimize the curriculum of teacher education; teachers in universities should establish the teaching concept of "students' body as the main body"; teachers in universities should enrich the content and form of teaching skills evaluation; physical education teacher-training students should pay attention to the development of their teaching skills and actively participate in the teaching skills competitions held by colleges; and the teachers of colleges and universities should enrich the content and form of teaching skills evaluation; physical education students should pay attention to the development of their teaching skills and actively participate in the teaching skills competitions held by colleges.

As an important part of teacher education, the quality of physical education teacher education in colleges and universities has also received great attention from the state. To enter the ranks of physical education teachers, physical education students must not only pass the education course exams and physical education skills tests set by their schools, but also take the national unified exams for teacher certification, and pass interviews and written exams to obtain their teaching certificates. Physical education teacher trainees must master theoretical knowledge of physical education and related skills, develop in the direction of specialization, and gradually cultivate a reserve team of physical education teachers who are "able to teach, know how to teach, and teach well". We will continue to improve the professional development system of physical education in colleges and universities, build a professional physical education teacher reserve team, and provide

a solid guarantee for the national school sports reform.

## 1. The importance of teaching skills of physical education teacher training students

Skills can be divided into two categories: motor skills and mental skills. Mental skills are formed based on motor skills, and motor skills are the outward sign of mental skills. Motor skills and mental skills complement each other and promote each other in teaching practice activities, which is an organic unity. Teaching skills are the general term for a series of behaviors and intellectual activities that teachers form and consolidate through training to accomplish educational and teaching tasks quickly, accurately and fluently in the process of educational and teaching practice. [1] It includes two parts, explicit skills and invisible skills. Explicit skills include basic teaching skills, teaching design ability and classroom practice ability, while invisible skills include teacher camaraderie, teaching resourcefulness and lifelong learning ability. The physical education teaching skills are the actions that physical education teachers adopt in the physical education classroom, using physical education theories, sports professional skills and physical education teaching experiences, with mental skills and motor skills as the main forms of expression, and gradually form and complete physical education teaching tasks skillfully through continuous practice.

Scanlon Dylan, in his study on the socialization of physical education teacher preparation, mentioned that the socialization of pre-service physical education teachers is important for their own professional development and social needs. The socialization of physical education teacher training requires that the curriculum system should be oriented to the needs of society, based on the exercise of training teacher trainees in teaching practice, with the goal of training qualified physical education teachers [2]. Calderón Antonio, in his study on the modernization of physical education teacher education, mentioned that the training of physical education teacher trainees in various countries is fixed on the traditional teaching methods and approaches, and in recent years, due to the epidemic and other factors, the traditional way of teaching physical education is facing great challenges, and in the era of high information technology, the training of physical education teacher trainees should adopt a new teaching model-hybrid teaching. [3] Tendinha Ricardo (2021) conducted a systematic study of teaching models in physical education and pointed out that physical education teaching models have an important impact on the motivation of physical education teacher trainees. Physical education teaching models provide more practical references for physical education teacher educators to develop their own classroom teaching skills and facilitate their use of teaching models in post-service classroom teaching. The application of physical education teaching models should be considered when developing or adapting existing curricula for physical education students to promote intrinsic motivation to engage in physical activity [4].

The current model of training physical education teacher trainees suffers from the inability to efficiently deliver qualified physical education teachers to primary and secondary schools. The reason for this is that there are fewer opportunities for cooperation and exchange between universities and primary and secondary schools, which leads to the failure of the training units of universities to understand the needs of front-line physical education teachers in primary and secondary schools in a timely manner and the problem of insufficient practical skills of the trained physical education teacher trainees. In order to better promote the development of physical education teacher education in China, the training of physical education teacher-training students in China should be closely integrated with the actual reform of school physical education in China, the setting of training objectives should be changed to generative objectives, the training methods should be rooted in the real needs of primary and secondary schools, and the curriculum should focus on the effective connection between theoretical knowledge and practical ability, so as to lay the foundation for the delivery of qualified primary and secondary school physical education

teachers.

## **2. Factors affecting the teaching skills of physical education teacher training students**

### **2.1. Influence from their own level**

Because of the special nature of physical education, teachers in colleges and universities pay more attention to the development of students' motor skills and neglect the cultivation of students' "teacher training". In a very short period of time, teachers only teach students "what teaching design is", but not "how to write teaching design", so most students only copy the existing teaching design and do not write it independently. Physical education teacher trainees have incorrect perceptions of teaching design. They think that teaching design is not important in physical education, as long as they teach students movement techniques in the classroom. Educational internship is the best way to exercise the teaching design writing ability of physical education teacher-training students, but because of the poor understanding of teaching design among physical education teacher-training students, in most cases, in order to complete the task of writing teaching design for educational internship in school, physical education teacher-training students usually write it uniformly and centrally in the last stage at the end of internship. The way of classroom teaching skills training is fixed. When teaching physical education teacher trainees, teachers in colleges and universities explain movement techniques and organize them for practice based on the physical movement foundation of physical education teacher trainees, but teachers in colleges and universities neglect to split and reorganize the teaching materials and do not teach physical education teacher trainees how to explain technical movements to primary and secondary school students and organize them for practice in the actual classroom of primary and secondary schools. As a result, more physical education teacher-training students imitate the teaching style of college teachers when giving lessons to primary and secondary students, and because the objects of teaching in the classroom are different, physical education teacher-training students feel the lack of their own classroom teaching skills firsthand.

### **2.2. Influence from the teacher level**

The establishment of a student-centered teaching concept and the importance of students' main position in the classroom have been highlighted in the reform of physical education curriculum in China, and are also the teaching pursuits of front-line physical education teachers [5]. The "false student subjectivity" classroom inhibits students' physical development to some extent and is not conducive to the generation of positive cognition. In the process of developing the teaching skills of physical education teachers, the existence of "false student subjectivity" will lead to the passive cognition of teaching skills of physical education teachers, which will affect their flexible use of teaching skills in practice and is not conducive to the development of their teaching skills. The single content of the assessment is not conducive to the comprehensive and objective evaluation of the teaching skills of physical education teacher-training students, and is prone to the wrong orientation of generalization. At the same time, the process evaluation is more arbitrary, and there is basically no big difference between the process evaluation results of each PE teacher-training student, which does not give full play to the role of process evaluation. The evaluation process lacks clear indicators, and the evaluation process is not transparent, so it is difficult for students to get feedback from the process evaluation and form a correct perception of themselves. Teachers in higher education have heavy research tasks, and in their research process, teachers constantly update their knowledge system and learn about the most cutting-edge educational theories. However, to apply educational theories to teaching practice, teachers need to constantly improve

their teaching design and adjust their teaching ideas to find the combination of educational theories and teaching practice, a process that takes a long time and requires much effort. As a result, teachers are unable to apply educational theories to teaching practice. In the process of training physical education teacher-training students, most teachers teach based on their existing teaching experience and fail to apply the latest educational theories to practice, which results in the phenomenon that current physical education teacher-training students can master the basic teaching skills but cannot apply them flexibly in actual classroom teaching.

### **2.3. Influence from the school level**

The size of the class affects the overall teaching and learning effect of the classroom, because the teaching skills of physical education teacher-training students are different from the requirements of theoretical knowledge-based teaching, the large class size of training makes it difficult for teachers to control the actual situation of the teaching skills training of physical education teacher-training students, and physical education teacher-training students are prone to the problem of muddling through in the training process, resulting in the lack of substantial development of their teaching skills in the classroom [6]. The quality of the training of teaching skills of physical education teacher-training students in colleges and universities depends to a certain extent on the training place of teaching skills. The curriculum of physical education teacher training students mainly contains two parts: compulsory courses and elective courses. The compulsory courses are basically the same in all schools, but all kinds of courses are covered in the elective courses, and the elective courses are too much and not strongly targeted. Most physical education teacher-training students have difficulty in weighing the importance of elective courses, and there is the problem of credit-driven course selection, and their teacher education ability has not been developed through course learning. There is less communication between colleges and universities and the education internship bases of physical education teacher training students. Although colleges and universities have implemented the "double tutor" system in their internship arrangements, there is little communication between college instructors and internship school instructors, and the double tutor system has not yet played its "synergy" role. The instructors of colleges and universities do not follow up and guide the physical education teacher-training students under their guidance, ignore the needs of physical education teacher-training students in the internship process, fail to understand the problems that arise in the internship process of physical education teacher-training students in time, and their teaching skills are not developed substantially in the internship process.

## **3. Physical education teacher training students teaching skills improvement strategies**

### **3.1. Innovate classroom teaching mode and promote education teaching reform.**

On the basis of small class teaching, teachers should change the teaching thinking of "indoctrination" in large classes. In the classroom, through the use of cooperative group learning, inquiry-based learning, case study and other forms, to promote the exchange of learning between teachers and students and students, deepen the knowledge of physical education teacher-training students on teaching skills. At the same time, teachers should organize and encourage physical education teacher-training students to actively conduct classroom demonstrations, so that physical education teacher-training students can improve their teaching skills more quickly by practicing in the real world. When choosing the physical teaching environment, teachers should take into account the complexity of the teaching environment and the adaptability of students, and try to choose a relatively closed or quiet teaching place to avoid the influence of the outside environment on the teaching effect. The micro-grid classroom is relatively closed and has high requirements for class

size, which can provide comprehensive training for the teaching skills of physical education teacher trainees, and is the best teaching place for teaching skills training, as well as the teaching place advocated by the Embodied Cognition Theory. Physical education teacher trainees should have a correct perception of their teaching skills development. They should actively participate in the classroom and ask their teachers and classmates about the problems in the development of their teaching skills in order to solve the problems in the development of their teaching skills and promote the high-quality professional development of their teaching skills.

Optimize the course structure. We divide the courses into categories according to their nature, and at the same time delete similar and repetitive courses, and increase the number of credits of core courses in the compulsory courses and reduce the percentage of credits of elective courses. This will reduce the course load of physical education students and provide them with sufficient time for independent study. Increase the setting of practical courses. On the basis of the original, theoretical courses with weak relevance are deleted and practical courses are increased. At the same time, courses with repetitive content can be optimized and combined to increase the depth and breadth of the curriculum to meet the needs of the overall development of physical education teacher-training students. Physical education teacher-training students should pay attention to educational internship. Educational internship is an important platform for the development of physical education teacher-training students' pre-service teaching ability and an important stage in the formation of their professional values. As teachers, they should complete their teaching tasks carefully and successfully, and as students, they should learn from their colleagues and instructors about their teaching experience, teaching methods and ability to deal with course emergencies. Physical education teacher-training students should pay attention to the influence of education internship on their own development, constantly improve their professional knowledge and ability through internship, and lay the practical foundation for becoming qualified physical education teachers.

### **3.2. Strengthen the training of teaching design skills for teacher-training students**

The modules of teaching design, such as "setting teaching objectives", "selecting teaching contents", "determining teaching points" and "selecting teaching methods", are explained in detail. The modules such as "teaching objectives formulation", "teaching content selection", "teaching points determination" and "teaching methods selection" are explained in detail, and the physical education teacher trainees are trained to write in modules, so as to lay a solid foundation for the physical education teacher trainees to write a complete teaching design. Teachers in colleges and universities and instructors in internship schools should strengthen the supervision of physical education teacher-training students in writing their own teaching designs. Emphasize the importance of teaching design to classroom teaching and draw the attention of physical education teacher-training students to teaching design. By assigning teaching design writing tasks and retrieving and critiquing the teaching designs written by physical education teacher-training students, teachers in colleges and universities can discover the shortcomings in the teaching design writing of physical education teacher-training students in time, so as to propose improvement strategies and suggestions to strengthen the development of their teaching design skills. Physical education teacher-training students should correct their attitudes towards writing teaching designs. When writing instructional design, they should take the attitude of serving classroom teaching, set reasonable teaching objectives, choose appropriate teaching contents, adopt developmental teaching methods, clarify teaching priorities and difficulties, and provide effective guidance for actual classroom teaching after fully understanding the actual situation of teaching students. With the training of physical education teacher trainees to constantly think and write repeatedly, the professional development of their teaching design skills is promoted.



Increase the frequency of physical education teaching skills competitions held. Conduct physical education teaching skills competitions twice a year or more to increase the opportunities for students to participate and provide them with more choices. At the same time, colleges should actively encourage senior students to participate and junior students to watch the competitions. On the premise of the college teaching skills competition, the teachers can organize the grade teaching skills competition in a small scale, so as to promote the participation of more students and implement the meaning of "promoting learning through competition". The physical education skills competition should be transparent and open. The content and sports of each grade's teaching skills competition should be reasonably arranged, and standardized scoring rules should be made according to the content of the competition so that the participating students can have a detailed understanding of the scoring rules of each event. After the competition, when the overall results are announced, a separate score sheet for each sport can be attached to let students fully understand their own strengths and weaknesses. By holding the physical education teaching skills competition, students can have a correct perception of their own teaching skills development and can promote the improvement of their teaching skills in a targeted way. Correct the attitude of physical education teacher-training students to participate in teaching skills competitions [7]. Actively enroll in teaching skill competitions and recognize the importance of teaching skill competitions to their professional development. They should pay less attention to the competition ranking and pay more attention to their teaching performance during the competition, so as to check their teaching skills and make up for the shortcomings and achieve the purpose of "promoting learning through competition".

### **3.3. Establishing the teaching concept of student-centered teaching**

Influenced by the traditional education concept, teachers believe that students' cognitive level is determined by students' mental level and has nothing to do with students' bodies. In the process of physical education, most teachers ignore students' embodied experience and overemphasize the standardization, standardization and unification of students' movement techniques. This process neglects the subjective characteristics of the body, ignores the characteristics of bodily cognition, inhibits the individual development of students' bodies, and turns physical education into the study of rules and regulations, which seriously affects the effectiveness of physical education. From the perspective of "embodied cognition theory", teachers should change to "embodied" teaching thinking. The "embodied" teaching advocates to take students' bodies as the main body and pay attention to the changes of students' bodies, where the "body" is not only the body in the physiological sense, but refers to the dynamic unity of physiology, psychology and mind. Establish the teaching concept of "student body as the main body". In the process of teaching physical education students, teachers should focus on the physical performance and experience of students' movements, instead of prescribing the development of students' technical movements. Under the premise of standardizing technical movements, students are encouraged to give full play to their body's independent initiative. At the same time, teachers should let their own bodies participate in the classroom through body movements, facial expression control and other forms, so as to promote the embodied teaching experience of teachers and students, and then enhance the learning effect of physical education classroom.

When choosing teaching methods, teachers in colleges and universities should be motivated and promote the professional development of physical education teacher trainees. They should use various teaching methods such as language motivation, movement demonstration and difficulty reduction to promote students' embodied participation, and promote communication and interaction among students through inquiry-based learning and cooperative learning. In this way, it promotes

the standardized development of physical education teacher trainees' movement techniques and their understanding and application of teaching methods. Enrich the evaluation content. Add process evaluation indexes to make the process evaluation more fair and transparent. The process evaluation indexes can include the quality of PE teacher-training students' active answers to questions, the demonstration of teaching skills in the classroom, the performance of cooperation among groups, and the participation in teaching skills competitions. Refining the indicators of process evaluation can promote PE teacher candidates' classroom participation, while PE teacher candidates can get direct feedback from the process evaluation for improvement and enhancement.

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