

Research on the Practice and Application of Information Technology in Physical Education

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Abstract. With the popularity of the Internet, Information Technology (hereinafter referred to as IT) has been applied to many fields of education, especially Physical Education (hereinafter referred to as PE). Through IT, colleges can complete the information exchange of PE through the media. Through IT, we can use modern teaching technology to complete diversified teaching, which will lead to a variety of teaching process reform. With the development of multimedia technology, the application of IT in PE can stimulate students' interest in learning. Through IT, students can break through the key and difficult points in teaching, which can make students better establish the correct action representation. By strengthening students' physique, we can develop students' physique, which will enhance students' ability. First of all, this paper analyzes the importance of IT to PE. Then, this paper puts forward some problems. Finally, this paper puts forward some suggestions, which can be better applied to PE.

Keywords: Information Technology, Physical Education, Practical Application

1. Introduction

IT has been applied to the PE in Colleges, which will better train students' physical learning ability. Through the information platform, we can better carry out PE, which will better carry out diversified teaching [1]. Through IT, we can carry out a variety of teaching methods, such as micro class, MOOCS, etc., which will improve students' interest in learning. Through IT, PE can carry out the teaching methods before, during and after class [2]. Through IT, we can promote the diversified development of PE activities in Colleges. At the same time, we can divide and explain the technical difficulties, which will be more convenient for students to understand and explain. Through IT, we can promote the improvement of teaching level of PE teachers in Colleges, which will promote the formation of independent personality of college students [3-6]. Therefore, we must integrate IT into gymnastics teaching of PE, which will improve the ability of IT.

2. The role of IT in PE



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IT has become a new teaching mode of internalization of knowledge and skills, which plays an important role, as shown in Figure 1.



Figure 1. The role of IT in PE.

2.1. Promoting the diversified development of PE activities

With the reform of PE in Colleges, people also pay attention to the effective application of IT. Through the application practice, IT greatly promotes the improvement of the effect of PE in Colleges. Therefore, modern IT and PE are closely linked, which requires the use of IT to promote the development of teaching activities. IT is a kind of auxiliary teaching method, which can be applied in teaching activities [7]. Through IT, we can strengthen the interoperability, comprehensiveness and sharing of PE content, which can promote the diversified development of PE teaching methods. By optimizing the PE classroom environment, colleges can create a more suitable classroom environment. Through IT, colleges can make full use of the diversity and sharing of network resources, which will enrich the teaching content. By expanding the knowledge of students, colleges can improve students' interest in learning. Through IT, colleges can improve their practical ability and independent learning ability, which will cultivate students' comprehensive quality and comprehensive development ability. Through IT, teachers can apply various forms of information methods to teaching activities, which will teach students more comprehensive knowledge. Through IT, we can assist the PE in Colleges, which can promote the improvement of the effect of PE. Through teaching practice, it is found that the effective application of IT in college PE can be transformed into inquiry teaching mode. Through IT, colleges can promote the improvement of students' interest in learning, which can promote the realization of teaching effect [8].

2.2. Easy to explain the technical difficulties

Through IT, we can divide and explain the technical difficulties and key points, which will make students more easy to understand. For the complicated technical actions, teachers can use demonstration explanation method. Taking the teaching of martial arts long boxing as an example, there are many overall movements, which requires students to write down and explain them repeatedly. However, the teaching hours are limited, and students are also difficult to master all. The traditional demonstration and explanation method needs teachers to do action demonstration for students all the time, which makes

it difficult to have time for individual guidance. Therefore, the students' wrong actions are not corrected in time, which will lead to teachers and students tired. Therefore, the effect of PE teaching is poor [9]. Through modern IT, teachers' demonstration can be replaced by video, which will be able to walk into the student team more time. Through the more detailed guidance of the students' technical actions, students will better master the technical ability of PE. At the same time, for some very complex technical actions, IT can be divided into independent "slow lens" forms, which will be more convenient for students to observe carefully [10]. Through IT, modern teaching method can give a vivid explanation to the action essentials and sequence of actions, which can make students have a whole concept. Through modern IT, PE teachers can get more teaching resources, which will make the teaching content more abundant. Through IT, we can impart more comprehensive sports knowledge to students, which will arouse students' interest. By broadening the students' vision, we can make teaching methods more interesting [11].

2.3. Promoting the development of College Students' personality

Through IT, colleges can promote the improvement of teaching level of PE teachers, which will promote the development of College Students' personality. Different PE teachers will have different in many aspects, such as age, gender, special subject, interest, etc. Therefore, different teachers are good at their own expertise, and no one can become an all-round teacher. Therefore, in the process of teaching, we will be difficult to avoid various problems. Through modern IT, colleges can provide convenience for teachers' study [12]. Therefore, teachers do not have to attend some vocational training, which can learn some new teaching ideas and teaching methods. Through IT, university teachers can improve themselves, which will promote their teaching level. College students are a group full of vitality and personality. Therefore, the traditional teaching form of class as unit does not pay attention to the development of students' personality. Therefore, traditional teaching methods are difficult to arouse students' interest in learning. Through modern IT, we can highlight the students' subjectivity, which will improve the development of paying attention to students' personality [13].

3. Problems of IT in PE

This paper conducted a questionnaire survey on students in a university. A total of 500 questionnaires were distributed and 488 valid questionnaires were collected. The effective rate reached 97.6%.

3.1. Students' questions about the application of IT

According to the students' interest in sports micro class, there will be many problems. Through the research, we can get the analysis results, as shown in Figure 2. According to the survey results, the main problem is Low image quality of micro video, accounting for 62.9%. The second is Lacking of interaction between teachers and students, accounting for 54.9%.

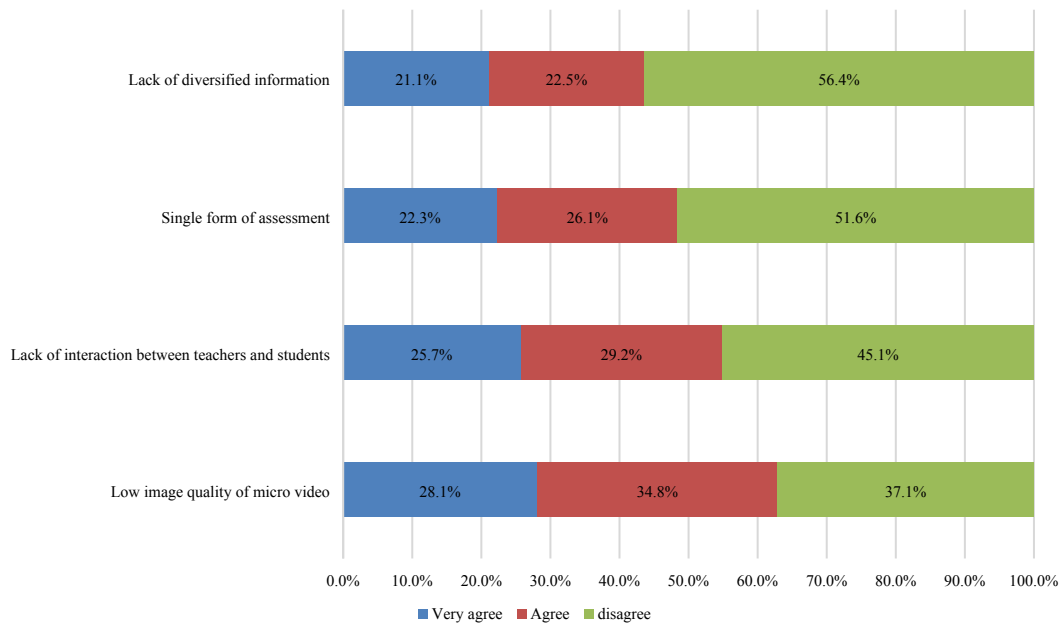


Figure 2. Students' questions about the application of IT

3.2. Low utilization of information teaching resources

At present, the utilization rate of college students to the teaching resources of PE micro course is not high, which requires the students to improve their interest in learning. Through the research, we can get the analysis results, as shown in Figure 3. According to the survey results, the main problem is Lack of representativeness of resources, accounting for 53.3%. The second is Poor learning atmosphere, accounting for 46.7%.

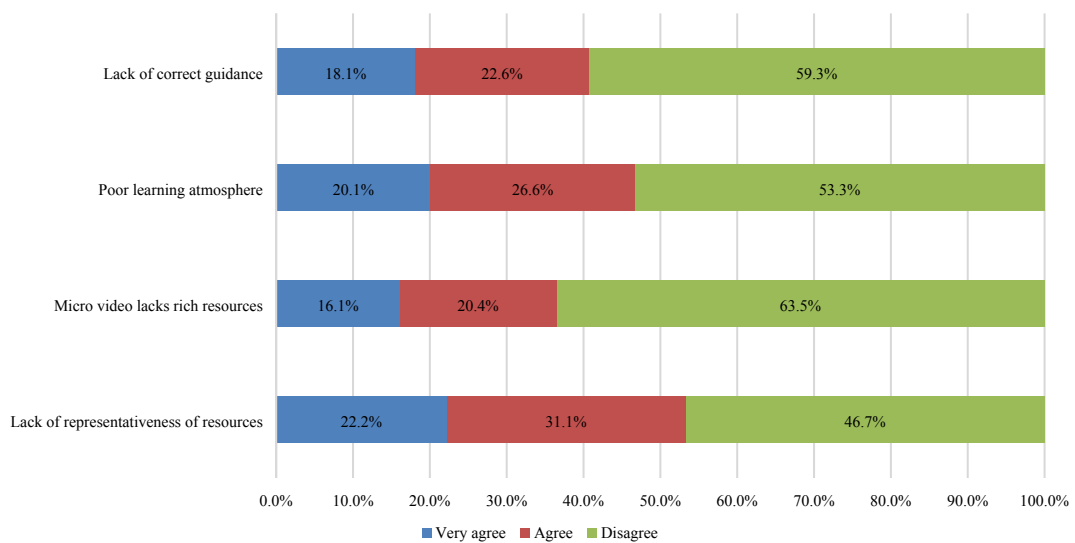


Figure 2. Low utilization of information teaching resources

4. Application of IT in PE

4.1. Improve students' interest in learning

Through IT, colleges can let students learn in an interesting atmosphere. Without the drive of interest, all students' learning activities are very passive, which will lead to poor teaching effectiveness. Therefore, teachers should skillfully integrate IT related elements into teaching, which can build an interesting learning platform. Through the information platform, colleges can realize the process of knowledge from easy to difficult. Through the Internet, we can integrate a variety of measures, such as voice information, picture information, video information, etc. Therefore, we must enhance students' interest in learning, which will better improve students' true level.

4.2. Innovating the teaching mode of PE in Colleges

College PE teachers should make full use of the convenience brought by modern IT, which can combine multimedia teaching with traditional teaching. In the process of teaching, we should properly apply multimedia technology, which can enhance the sense of picture of technical action. Through animation demonstration, we can improve the vividness of teaching, which will stimulate students' interest in learning. Through the traditional demonstration teaching mode, PE teachers can repeatedly demonstrate and explain the technical movements, which requires us to continuously enhance classroom teaching time. Through multimedia technology, we can assist teaching, which can broaden the teaching time. Therefore, students can learn by watching videos. Through many sports teaching videos, colleges can be equipped with a detailed explanation, which can stimulate students' desire to learn. Through the network IT, students can get the latest sports information, which can watch the latest exciting events. Therefore, IT enriches the teaching content, which also greatly improves the students' interest in learning. Therefore, colleges must innovate PE teaching mode, which will better carry out PE.

4.3. Perfecting the content of Sports Multimedia Courseware

The quality of multimedia courseware directly affects the quality of multimedia teaching, which needs to pay attention to the production of multimedia courseware. Based on the requirements of teaching objectives, we can be innovative and interesting, which can meet many aspects of the content. First, the design of courseware should follow the law of PE, which will stimulate students' thirst for knowledge. Therefore, through the completion of multimedia courseware, colleges can have the function of checking knowledge and consolidating knowledge. Multimedia courseware should be based on the syllabus, which can grasp the main contradiction of PE. In this way, we can ensure the order of teaching. Second, the courseware design should follow the law of the formation of movement skills and need different purposes. In the initial teaching stage of sports action, the main content of courseware design is the technical link. Therefore, teachers should reveal the forms and laws of sports in a richer form. In the specific stage of action learning, courseware design should pay more attention to the details of the action, which will solve the fundamental problem.

5. Conclusion

Through the integration of IT resources, we can integrate IT into PE, which will form a real joint force of PE. Through IT, we can enrich teaching resources, which will improve the traditional teaching

environment. Through IT, we can improve the teaching quality of students, which will continue to achieve the comprehensive integration of teaching and IT.

References

- [1] Chen Qingfu, Chen Jia. Application of modern IT in College PE [J]. Sports, 2013 (07): 94-95.
- [2] Fan Yunxiang, Shu gen, Ma Weiping. Informatization of teacher education and improvement of information literacy of PE teachers [J]. Journal of educational science of Hunan Normal University, 2013,12 (01): 57-62.
- [3] Jin Yongtao. The integration of IT and junior high school PE [J]. Neijiang science and technology, 2020,41 (01): 155-156.
- [4] Liao Ping, Wang Jian. Identity negotiation of PE teachers in the era of IT [J]. Journal of Beijing Sport University, 2015,38 (05): 102-107.
- [5] Liu Meijin, Huang Daidai. Research on demand analysis method of PE informatization [J]. Journal of Beijing Sport University, 2016,39 (04): 80-84 + 89.
- [6] Liu Zhen, Huang Aifeng, Cao hydrocarbon, Liu Lin. practice and Enlightenment of international K-12 PE informatization [J]. Journal of PE, 2019,26 (01): 107-113.
- [7] Qiu Bo. Research on the integration of IT and technical courses of PE specialty [J]. Shandong sports science and technology, 2015,37 (04): 101-103.
- [8] Ran Feng. Discussion on the construction of innovative talents training system model of PE by IT [J]. Journal of Chongqing University, 2008,14 (06): 144-146.
- [9] Tao Yue, Wang Lei. Application of IT in PE and training [J]. Contemporary sports science and technology, 2019,9 (31): 31 + 33.
- [10] Wang Zhe, Wu Yongjun. Investigation and Countermeasures on the development of PE Informatization in China [J]. Journal of Xingtai vocational and technical college, 2020,37 (03): 57-60.
- [11] Wang Zhongrui. The influence of Internet on College PE and the countermeasures [J]. Youth sports, 2016 (03): 105-106 + 61.
- [12] Zhang Heying. Application of Hybrid Teaching Mode in College PE Specialty [J]. Contemporary education practice and teaching research, 2019 (02): 202-203.
- [13] Zhang Jie. Research on the influence of PE on the cultivation of College Students' comprehensive quality in the information age [J]. Journal of Xiaogan University, 2011,31 (05): 87-90.

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