

Analysis on the application of Internet-based exercise prescription teaching method in PE class

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Abstract

For now, with various specialized features, the Internet-based exercise prescription teaching in PE class has resulted in significant teaching achievements in teaching field and been popular among the teachers of various disciplines. Besides, it contributes to learn the knowledge in the class more efficiently for the students. However, the exercise prescription teaching in physical education based on the Internet has been so far widely used in various disciplines, except for the physical education. Under this circumstance, the study explores the application of exercise prescription teaching in physical education based on the Internet, by means of related literatures, the method of calculation, as well as the actual situation of physical education.

Keywords: internet-based, exercise prescription teaching, physical education, application analysis

1 Introduction

With the gradual promotion of physical education reform, new teaching methods are put into practice in physical education. For now, the exercise prescription teaching in physical education based on the Internet has resulted in significant teaching achievements which can be evaluated by F-test, namely

$$F = \frac{n_1^{\frac{n_1}{2}} n_2^{\frac{n_2}{2}} \Gamma\left(\frac{n_1 + n_2}{2}\right) x^{\frac{n_1}{2} - 1}}{\Gamma\left(\frac{n_1}{2}\right) \Gamma\left(\frac{n_2}{2}\right) (n_1 x + n_2)^{\frac{n_1 + n_2}{2}}}$$

For instance, when the students are trained in the balloon volleyball and basketball, the exercise prescription teaching is highly welcomed by the university students [1-3]. As a result, it helps them grasp the main points of the sport and leads to expected teaching effects. For this kind of situation, it has been one of the key researches in the physical education to study the internet-based exercise prescription teaching method [4-6].

2 Advantages of the internet-based exercise prescription teaching method in the PE class

As an effective means of teaching, there are many Distinctive features in the Internet-based exercise prescription teaching in physical education and they attracts a large number of physical education teachers committed to the teaching strategies of the Internet-based exercise prescription teaching in physical education. According to the relevant literatures and practical activities in physical education, the application of internet-based exercise prescription teaching method in physical education has the following advantages [7-11].

First of all, the Internet-based exercise prescription

teaching method is highly targeted. *K*-test, namely

$$K_1 = \frac{1}{\frac{1}{\alpha_1} + \frac{1}{\alpha_2} + \frac{\delta}{\lambda} + \gamma}$$

can be used to analyze the related equipments no matter in the integration of teaching content, the analysis of the teaching process, or the process of selecting the teaching equipment. Besides, the method should take into account the specific characteristics of the students. And even the appropriate teaching content and equipments are suitable for different students. For instance, the specification in Figure 1 can be used in the Teach the students to pass the ball in 8 shape.

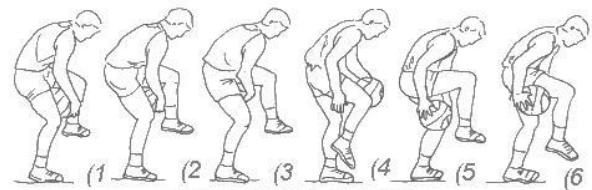


FIGURE 1 8-shaped Standardized Pass Teaching (In situ exchange knee)

Secondly, the Internet-based exercise prescription teaching method is effective and customized. On the basis of exercise prescription teaching method, the teaching content and equipments are made and adjusted according to the specific circumstances of the students. For the students in poor physical quality, the requirements of the physical fitness can be reduced to some extent, and the α -test

$$\alpha_1 = 1.86 \left(\frac{\lambda}{d_i}\right) \text{Re}^{\frac{1}{3}} \text{Pr}^{\frac{1}{3}} \left(\frac{d_i}{L}\right) \left(\frac{\mu}{\mu_w}\right)^{0.4}$$

can be used to evaluate the teaching effects. If the teaching method is adopted [12-17], the detailed teaching planning should be established in line with the comprehensive physical information of the students.

At last, the Internet-based exercise prescription teaching method is widely used. The relationship between teachers and students will be enhanced, by means of the exercise prescription teaching method or the adjustment of the PE class. The physical fitness of students will promoted along with the adaptation process. Besides, in the mutual adaptation teaching, the Internet-based exercise prescription teaching method will be highly targeted.

3 Application condition of the internet-based exercise prescription teaching method in the PE class

3.1 PROFESSIONAL TEACHING CONTENTS

First of all, the teaching schedule and frequency of the Internet-based exercise prescription teaching method should be taken the receptivity of the students into account. Specifically, some students may have difficulties to keep up with the teaching schedule in the PE learning due to differences among the students. For this situation, the teachers should handle the teaching rhythm and pay more attention to each student.

Secondly, the difficulty of sport should be reduced according to the athletic abilities of students. In detail, some sports are easy for the gifted students but hard for the students who lack high athletic abilities. For this situation, the sports' actions should be decomposed properly by the PE teachers, in order to promote them.

At last, one-to-one tuition can be adopted when the students simply cannot understand the sport. For the students in extremely poor athletic ability, the Internet-based exercise prescription teaching method stimulates their learning potentials in sports and the corresponding test can be used to evaluate the teaching effects. That is,

$$\alpha_2^J = b^3 \sqrt{\frac{\gamma}{\sum d_0 q}}$$

During the specific implementation, the teacher either teaches the poor students by himself or arranges the excellent students to assist teaching.

3.2 TEACHING CONTENT GREATLY INTERESTED BY STUDENTS

In the PE class, many interesting teaching contents fully stimulate the students' interests in learning. For the boys, the football or basketball always arouse their interests while for girls, the badminton or kicking shuttlecock stir up their interests. For these teaching contents, the students will be passion for learning no matter what kind of teaching method the teacher adopts. And the corresponding effect should be evaluated by t-test, namely

$$t = \frac{|\bar{d} - \mu_d|}{s_d} = \frac{\bar{d}}{s_d / \sqrt{n}}$$

However, the students should be taught the basic content and essentials by the teachers, thus achieving better learning results. It is exactly the time when the internet-based exercise prescription teaching method should be used.

First of all, some of the university students is unfamiliar with the basic knowledge of sports owing to the examination-oriented education when learning something interesting. For such a case, the PE teachers are obliged to improve the theoretical basic knowledge of sports in a targeted manner, thus making it easier for teaching. As the ratings of PE class evaluated by students in a university shows in Figure 2, the students become more satisfied with the PE class by means of the exercise prescription teaching methods.

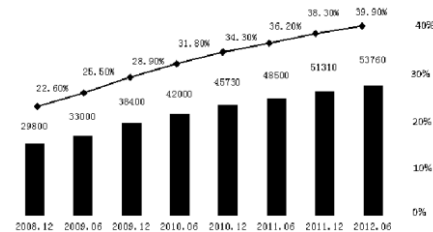


FIGURE 2 Ratings of PE class evaluated by students in a university

Secondly, some students fail to master the basic techniques of these sports perfectly. In this case, the students should be trained by the PE teachers of the basic training. Thus, they will master the basic techniques as soon as possible for convenience of follow-up study.

At last, there are some fundamental differences among the students on the sports. Naturally, it results in the gap among them on the learning effect. Under the circumstance, the teacher should be engaged in the targeted teaching by mean of the internet-based exercise prescription teaching method.

4 Analysis of application strategies of the internet-based exercise prescription teaching method in PE class

4.1 DIFFICULTIES OF THE INTERNET-BASED EXERCISE PRESCRIPTION TEACHING METHOD IN PE CLASS

The PE teacher should carry out the Internet-based exercise prescription teaching method according to the specific requirements of PE class, and assess the final Effect by means of the following formula, namely

$$a_2 = \frac{a_2}{1 + 0.4y^{0.8}}$$

And then put the method into use in the period of teaching.

To begin with, implement the Internet-based exercise prescription teaching method during the basic collective training which is regarded as the difficult part, as well as the relative basic role. Consequently, it is hard for the non-professional students to have a deep understanding of its connotation. Thus, the PE teachers should combine the intricate knowledge with vivid demonstration, making it more intuitive and easier for students to learn.

Secondly, conduct the Internet-based exercise prescription teaching method in grouping inadequate breakthroughs. There are differences among the learning effects due to the physical talent and athletic abilities. In this

case, the PE teachers should focus on the differences between students and classify them into groups in line with the performance of students. Therefore, the talented students will not have to repeat the same inadequate sport while the poor students can catch up with the learning pace.

At last, carry out the Internet-based exercise prescription teaching method in extreme breakthroughs for individual students. It is necessary to adopt the Internet-based exercise prescription teaching method for the students in poor athletic abilities. With the help of outstanding students, the poor students will make great progress together.

4.2 EMPHASES OF INTERNET-BASED EXERCISE PRESCRIPTION TEACHING METHOD IN PE CLASS

The PE class is aimed at promoting the physical fitness of students, and awareness of lifelong exercise. So the Internet-based exercise prescription teaching method should be introduced to improve their sports awareness and physical abilities. The teaching effectiveness will be evaluated by the Equation,

$$Y = \frac{\sum(ac - bd)}{t^2}.$$

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The method is composed of the following aspects. First of all, the PE teachers should develop a universal goal for the PE class. Then establish specific exercise prescription to make them do group exercise according to the requirements of PE class. Secondly, regularly carry out detection enhancement and PE simulated detection to check the detailed learning and physical conditions. Thirdly, conduct Strengthening competition for the students in poor condition to urge them to learn the PE knowledge hard. At last, execute entertaining training to promote the atmosphere of PE class. Thus, the students are more willing to exercise and learn sports knowledge.

5 Conclusion

Above all, the Internet-based exercise prescription teaching method takes into account the athletic ability and PE learning effects at all levels, more targeted and promising in PE class. Besides, the research on the Internet-based exercise prescription teaching method lays the solid foundation of teaching efficiency in PE class, thus enhancing the physical fitness of the students.