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Effects of multimedia assisting teaching on the improvement of the students football skill

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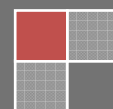
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ABSTRACT

The football-skill teaching has been in the practice-centered state for a long time. In view of the existing state, this investigation, based on the football elective course, studies the effects of multimedia-assisting teaching on the football-skill teaching. The multimedia can make the teaching more visually oriented and help the students understand and master the football skill better so as to achieve more ideal teaching effects. Adopting the multimedia-assisting teaching in the conventional football-skill teaching mode can show the act more visually, optimize the teaching structure and improve the students' ability. The test result shows that the multimedia-assisting teaching mode has three kinds of studied football skills improved significantly and is worth popularized. However, we could not emphasize the importance of the multimedia teaching blindly. During the multimedia-assisting teaching, we should adopt the multimedia reasonably according to the teaching contents and integrate the advantage of the conventional teaching with that of the multimedia teaching in hope of achieving the best teaching effects. This study, choosing all elective course students as subjects demonstrates in fact three kinds of students' football skills (shooting, kick-further and kick-accurate) with 5 methods such as experimental method and contrastive method. The test result shows that the use of multimedia in the football-skill teaching can improve the students significantly.

KEYWORDS

Multimedia; Football; Craft; Teaching.



INTRODUCTION

The football, as the antagonistic project in one field, is led by the skill. Therefore the football skill, which integrates the act of attack with that of defense in the football match and is the special act designed for the special purpose and is the general term of the special acts and methods more definitely, is one of the most crucial essences in the recognition of the economic ability of football player^[1].

With the rapid development of the computer technology, the multimedia technology also updates constantly bringing dramatic changes to the human, so it is in Education. Multimedia as a modern teaching mode plays an increasingly important role in today's advocating quality-oriented education. The use of multimedia-assisting teaching makes the means and methods of teaching more diverse and adds more illustrations to the teaching contents which are based on the conventional teaching. This interactive learning environment can stimulate students' interest and enthusiasm in favor of the formation of students' motivation to learn. With the multimedia teaching mode introducing, the students have more interests and are willing to discover and explore the unknown knowledge so as to deepen understanding of knowledge^[2]. Moreover, the use of computer network in the multimedia teaching can make the learning mode more collaborative and comprehensive source of knowledge helps build students' overall knowledge system achieving a more significant teaching effect. In view of the above advantages of multimedia-assisting teaching, it has been applied more and more widely.

At present, the universities' football-skill teaching has been in the practice-centered state for a long time and the space and fund, etc. must be taken into account in the football teaching, which restrict the use of multimedia-assisting and limit the application of the multimedia-teaching tool^[3]. With the improvement of the teaching condition, the laptop has been used in teaching making the use of multimedia teaching free of limitation thoroughly and bringing the multimedia-assisting teaching in the football-skill teaching into practice. From the actual application, we can learn that the introduction of the multimedia-assisting mode in the football-skill teaching can improve the football teaching significantly. This paper only chooses three football skills to analyse and demonstrate as the football skills involve widely and can not be fully introduced.

FUNCTION OF THE MULTIMEDIA-ASSISTING TEACHING

Stimulating the teacher to play the leading role fully

Different from other courses, the football course has obvious teaching features. Compared with the theoretical teaching, teachers' example as well as verbal instruction is more important in football course, but the football skills involve widely and there are 8 skills in total. Not only teachers have their personal difference, but also their strength is limited so that they master the different difficult technical acts limitedly and can not explain and demonstrate a thorough understanding of all the technical action^[4]. But in the actual teaching, the multimedia-assisting teaching is based on the teachers' explanation so as to avoid the above problem. The multimedia tool can make up for the teachers' deficiency in the football-skill act show and we can increase/decrease the act speed to meet the different requirements of students or blow up the acts partially to make the students observe more clearly. In this way, not only the teachers' pressure can be relieved but also the explanation of the football-skill act is more accurate and advanced. This teaching mode is simplified as well as highlighting and promotes the teacher to play the leading role.

Multimedia-assisting teaching can speed up the formation of students' athletic ability

In the football-skill teaching, the learning of the athletic ability should be emphasized. The conventional teaching focuses on less teaching and more practice, as the saying goes, "The master teaches the trade, but the apprentice's skill is self-made", but when the "master" demonstrating, some essences such as the master's demonstration angle and location, the students' observation angle and the complexity of the act may prevent the demonstrating and explaining football skill from being passed to the students clearly and fully. This problem is more obviously in the act demonstrating teachings which need more skills and special speed^[5]. But the introduction of the multimedia-assisting teaching mode in the conventional teaching can increase the output of the information and stimulate the students' full range of body feeling making up for the deficiency of the conventional teaching and deepening the students' understanding and master of the teaching, promoting the student to achieve the knowledge, helping the student master the technical essentials correctly and realize "the apprentice's skill is self-made".

Multimedia-assisting teaching can improve the students' learning consciousness and enthusiasm

The multimedia-assisting teaching in the football skill can create a good teaching atmosphere as well. There is specified skill, vivid picture and full of image and sound in the demonstration of the football skill act with the multimedia^[6] and a slow-motion replay and demonstration can be made for the high level and difficult act so that the teaching is more lively and the skill analysis is clearer reducing the learning difficulty while stimulating the students' learning interest, improving the students' learning consciousness and enthusiasm, and the clear demonstration of the football skill act can strengthen students' ability to comprehend and enhance the students' athletic ability in turn so as to achieve better teaching effect.

Use of the multimedia-assisting teaching can reflect the intuitive teaching principle fully

The general steps are the theory explanation, teachers' demonstration and students' practice using the form of teaching less and practicing more in the conventional football skill teaching mode which results that the students can not find the key and difficult point receiving the knowledge passively and can not adapt to the class, moreover, students' application ability can not be cultivated and the teaching contents are not lively^[7]. The feature of football skill is that a complete skill usually takes a short time in the practical application. The students especially for those in the initial learning stage can not notice and observe each detail provided that the teacher dose not teach every point and not have the demonstration and explanation. To a great extent, the teachers' demonstration can only leave the fuzzy representation to the students resulting in the phenomenon "the practical act does not suit the demonstration" making it difficult to achieve the teaching effect. The introduction of the multimedia can not only release the teacher from the demonstration but also make the relevant details in the freeze frame so that the act is free from the time limitation. The clear explanation of the skill based on the freeze frame or slow motion can help the students deepen the act impression. Therefore, the intuitive teaching principle is reflected fully in the process and the students are guided to build up the concept of act.

OBJECT AND METHOD OF STUDY

Object of study

This paper has chosen two classes, from which class one has been chosen as the experimental class with 30 members and class two as the control class with 32 members, from the football elective course for contrastive study. One teacher takes charge of these two classes with different modes. The conventional football-skill teaching mode is used in the control class, whereas the experimental class adopts the mode integrated the conventional teaching with the multimedia-assisting teaching, that is, there is mainly the conventional teaching and 20-minute multimedia-assisting teaching every time.

Method of study

Firstly, the teacher shall make a practical teaching plan based on the conventional football-skill teaching and assisted with the multimedia teaching for the students in the football selective course. All data in this paper are obtained by measurement. The age, age and weight of the subject are measured before the test. The football skills in this paper include football dribbling, shooting, kick-further and kick-accurate. The score shall be measured before and after the 12-week long test, and the data shall be measured and recorded every four weeks during the period. Three football skills shall be measured and recorded in the five measurements. Every football skill shall be measured three times in each measurement and the highest score shall be taken as the experimental data.

In the football dribbling and shooting item, the time from the subjects dribbling the football at the starting line to shoot it shall be measured, during which he/she must bypass 8 rods. The starting line is a vertical extending line from the center of the penalty area to a 6-meter line in the field and the extension is 20-meter long.

In the football kick-further item, a 50-meter line shall be selected firstly. The subject kicks the football from the starting point of the line. Draw a line from the falling point vertical to the 50-meter line and mark the intersection point. The distance from the intersection point to the starting point is the score.

In the football kick-accurate item, draw five concentric circles as the passing target. The subject passes football to each target without the special foot position twice. Different scores are for targets and the 6 scores in total are the final result.

All data obtained in this test shall be stored in the computer for statistical process with the spss processing software.

ANALYSIS AND STUDY OF THE TEST RESULT

Analysis of the subjects

The personal features, including age, height and weight, of 62 members in the experimental group and the control group should be measured and recorded to ensure the scientific and effective group. The data shall be processed and analyzed with the spss processing software and the analysis shall be listed in TABLE 1. From the table, we can learn that P value in the age and height item is close to 1 and more than 0.05 indicating that two sets of data have no significant difference and that P value in weight item is 0.5, less than 1 but much more than 0.05 indicating that two groups of members have no difference as well. Three sets of data show that the equivalent personal features of two groups of subjects and the group is scientific and effective.

TABLE 1 : Contrastive analysis of subjects' personal features between the experimental group and the control group

Index	Age (Years old) X±S	Height (m) X±S	Weight (kg) X±S
Experimental class	20.73 ±1.05	1.704±0.051	68.70±5.62
Control class	20.72 ±1.09	1.705±0.050	69.59±5.17
F value	0.03	0.10	0.425
P value	0.957	0.919	0.517

Contrastive analysis of the football dribbling and shooting

In the football dribbling and shooting item, the data obtained in five measurements are analyzed initially and the analysis of the experimental group and the control group is listed in TABLE 2. From the table, we learn that two groups of members have no significant difference in score before the test and have obvious progress after the first four-week test and the first eight-week test, but the P value shows that two sets of data pass the significant 0.05 inspection indicating that two group of members have significant difference and the experimental group has more progresses. P value shows that there is much more significant difference in the two groups of members in the twelfth-week measurement and the final measurement and that the score of the experimental group goes up steadily indicating that experimental group is much better. Compared to the shooting score before the test, the experimental group's is increased by 2.84 seconds, whereas the control group's is increased by 1.91 seconds indicating that both the conventional teaching mode and the comprehensive teaching mode which is led by the conventional teaching and assisted by the multimedia teaching can improve the students' football dribbling and shooting ability, but the comprehensive teaching mode introducing the multimedia-assisting teaching brings a better teaching effect.

TABLE 2 : Contrastive analysis of the initial measurement data between the experimental group and control group of the football dribbling and shooting

Technical index	Experimental group	Control group	Inspect the F value	P value
Score before the test (s) X±S	12.52±1.81	12.35±2.06	0.498	0.483
Score of the fourth week (s) X±S	11.73±1.43	12.15±1.65	9.018	0.04
Score of the eighth week (s) X±S	11.48±1.38	11.90±1.60	10.277	0.02
Score of the twelfth week (s) X±S	9.90±0.87	10.92±1.53	26.540	0.000
Score after the test (s) X±S	9.68±0.79	10.44±1.35	31.681	0.000

Contrastive analysis of football kick-further technical teaching

In the football kick-further teaching, the experimental group's and the control group's scores obtained in five measurements are analyzed and the analysis is listed in TABLE 3. From the table, we learn that the P value of the two groups is much more than 0.05 indicating that two groups have the same foundation. The fourth-week result shows a somewhat lower P value, but the value is still more than 0.05 without significant difference indicating that the progress of the experimental group is not obvious. The P value in the eighth week, however, passes the significant 0.05 inspection indicating that there has been significant difference in the two groups after eight-week multimedia-assisting teaching and the experimental group gets a faster improvement. P value shows that there is much more significant difference in the two groups of members in the twelfth-week measurement and the final measurement and that the score of the experimental group goes up steadily indicating that experimental group is much better.

TABLE 3 : Contrastive analysis of the data between the experimental group and control group of the football kick-further skill

Technical index	Experimental group	Control group	Inspection	
			F value	P value
Score before the test (m) X±S	23.41±2.05	23.54±1.87	0.073	0.789
Score of the fourth week (m) X±S	23.93±1.99	23.46±1.75	0.965	0.33
Score of the eighth week (m) X±S	24.91±1.96	23.82±1.63	5.681	0.02
Score of the twelfth week (m) X±S	29.89±2.00	27.48±1.60	27.652	0.000
Score after the test (m) X±S	30.32±1.79	27.89±1.76	28.992	0.000

The data and analysis before and after the football kick-further test are listed in the TABLE 4. From the table, we learn that the kick-further score of the experimental group is increased significantly by 6.91 meters, compared to that before the test, and the P value in the inspection is 0.000, less than 0.01, indicating that there is a significant difference before and after the test in the experimental group, the score of the control group is only 4.35 meters and lower than that of the experimental group but the P value is less than 0.01 as well. That indicates the football kick-further score is increased significantly both in the experimental group and the control group after the test, the score of the control group is less than that of the experimental group. That is to say, both the conventional teaching mode and the comprehensive teaching mode are effective, but the latter is much better.

TABLE 4 : Contrastive analysis of the football kick-further score data before and after the test

Technical index	Kick-Further score before the test (m) X±S	Kick-Further score after the test (m) X±S	Inspection	
			F value	P value
Experimental class	23.41±2.05	30.32±1.79	21.134	0.000
Control class	23.54±1.87	27.89±1.76	17.415	0.000

Contrastive analysis of football kick-accurate technical teaching

In the football kick-accurate teaching, the experimental group's and the control group's scores obtained in five measurements are analyzed and the analysis is listed in TABLE 5. From the table, we learn that the P value of the two groups is 0.978, close to 1 and much more than 0.05 indicating that two groups have the same foundation. The fourth-week result shows a somewhat lower P value, but the value is still close to 1 and much more than 0.05 without significant difference in the two sets of data indicating that the progress of the experimental group is not obvious. The P value in the eighth week, however, is 0.04 and passes the significant 0.05 inspection indicating that there has been significant difference in the two groups after eight-week multimedia-assisting teaching and the experimental group gets a faster improvement. P value shows that there is much more significant difference in the two groups of members in the twelfth-week measurement and the final measurement and that the score of the experimental group goes up steadily indicating that experimental group is much better.

TABLE 5 : Contrastive analysis of the data between the experimental group and control group of the football kick-accurate skill

Technical index	Experimental group	Control group	Inspection	
			F value	P value
Score before the test (minute) X±S	8.40±3.51	8.37±3.44	0.001	0.978
Score of the fourth week (minute) X±S	8.70±4.37	8.81±3.81	0.012	0.914
Score of the eighth week (minute) X±S	11.47±4.52	8.97±5.00	4.236	0.044
Score of the twelfth week (minute) X±S	12.83±3.49	9.66±4.40	9.836	0.003
Score after the test (minute) X±S	13.47±3.95	9.56±4.56	12.928	0.001

The data and analysis before and after the football kick-accurate test are listed in the TABLE 6. From the table, we learn that the kick-accurate score of the experimental group is increased significantly by 5.07 minutes, compared to that before the test, and the P value in the inspection is 0.000, less than 0.01, indicating that there is a significant difference before and after the test in the experimental group, the score of the control group is only increased by 1.19 minutes and lower than that of the experimental group and the P value is more than 0.05 and does not pass the significant 0.05 inspection. From the statistics, we learn that the multimedia-assisting teaching can improve the football kick-accurate ability of the subject, and it is time to improve the conventional teaching mode as it could not have the students' ability improved obviously.

TABLE 6 : Contrastive analysis of the football kick-accurate score data before and after the test

Technical index	Kick-accurate score before the test (minute) X±S	Kick-accurate score after the test (minute) X±S	Inspection	
			F value	P value
Experimental class	8.40±3.51	13.47±3.95	-8.013	0.000
Control class	8.37±3.447	9.56±4.56	-1.958	0.059

CONCLUSIONS

Adopting the multimedia-assisting teaching in the conventional football-skill teaching can show the act more visually, optimize the teaching structure and improve the students' ability. The test result shows that the multimedia-assisting teaching has three kinds of studied football skills improved significantly and is worth popularized. However, we could not emphasize the importance of the multimedia teaching blindly. During the multimedia-assisting teaching, we should adopt the multimedia reasonably according to the teaching contents and integrate the advantage of the conventional teaching with that of the multimedia teaching in hope of achieve the best teaching effects.

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