Empirical research campus fun orienteering on students' physical fitness

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ABSTRACT

Interest orienteering is to promote independent learning, discovery learning, problem solving learning and emphasizes both inside and outside class physical education and social environment organic union, makes the students improve the overall physical fitness exercise. Through using the method of literature, mathematical statistics and experimental method, carry on middle school student campus orienteering teaching practice research. The results showed, in physical teaching, appropriately increase the orienteering teaching on students' sports training, all aspects of physical fitness and improve have very good effect.

Key words: Orienteering movement, Middle school students, Physical quality, Physical health

INTRODUCTION

Since twenty-first Century, along with the promotion of quality education and PE curriculum reform, our school physical education workers have begun to develop the vision, new point of view of sports of the school now and future, gradually break down the traditional campus closed boundaries, especially the sunshine sports movement in the nationwide after starting, making the school sports and social sports, competitive sports linked more closely. We follow the" diversity" and" health education first" and" people-oriented " philosophy of Education under the premise, for students to provide a broader space for development, orienteering movement is under the premise to flourish [1]. Directional movement with peculiar attractive, practical, fun is popular in person. After continuous development, now it has become a worldwide sport.

Orienteering movement is a very healthy intelligent sports, is equal between mental and physical sports [2]. Directional movement incorporates fitness, knowledge, interest and national defense education into one. It has the very high value of exercise. Students’ often participating in orienteering is conducive to the promotion of participants coordinated action, improving observation, judgment, reaction and logical thinking ability, enhancing circulatory, respiratory function. It also strong physique, raises the student independent thinking, independent solutions to the difficulties encountered in ability. When physical strength and intelligence are under pressure they can respond quickly, decisive decision ability and strong will power. So the students can in a relaxed and enjoyable to play in the process of growth, identify the images of knowledge; at the same time also can cultivate students’ good psychological quality of students, so as to promote the harmonious development of body and mind [3].

Most of the scholars study shows, directional movement of students to promote virtue, wisdom, physical and aesthetic education, enrich teaching content, reform of school physical education, to promote the level of sports and fitness has a considerable role [4, 5]. The directional movement of various forms of organization, moderate difficulty, easy to grasp, no site, equipment, and the number of constraints, is convenient for the school sports teaching in colleges. Orienteering competition process can improve learning analysis to solve the problem of general strain capacity and rapid response capacity, training students' will, perseverance, stamina and fitness [6, 7].

Orienteering is a run, jump, and climb across various physical activities in one sport in elementary and middle schools class for student’s physical quality and psychological quality of comprehensive exercise. Medium distance
running teaching of primary and middle school physical education teaching is one of main content, but because the content of the boring and tedious, making the most of students are tired of fear even project. According to the national Ministry of education students' physique monitoring data that, for nearly 20 years, our country middle and primary school students' cardiopulmonary function continued to decline, its realization is that the endurance quality is poor. Directional movement itself is a kind of long distance cross-country running, it can avoid the failures to improve the cardiopulmonary function of students in teaching methods, in the development of the students' physical quality but also can develop students' other comprehensive ability [8].

Although many scholars of China in the study on the Orienteering development situation, but generally the middle school opened the directional motion curriculum empirical research is less. As the middle school sports teaching of orienteering teaching content, teaching method, teaching environment setting method surface, especially through directional movement to improve the physical quality of middle school students study is relatively small. Therefore, this paper using the method of experiment, as to the Huangzhou first senior high school study, access to students before and after the experiment the students physical quality changes, analysis and putting forward rationalization proposals, for students training for reference, but also for the junior high school physical education more effectively improve the body quality of students and provide a theoretical basis.

EXPERIMENTAL SECTION

The study object
The experimental object is the student of Huangzhou area senior high school two grade two classes, which totaled 40 boys, 30 girls, two classes of students in proportion in sex. They are all at the age of 16 to 18 years old.

Literature method
The school library, China Journal Net and wan fang database was extensively reviewed and related documents are collected. This paper consults, collected and collated on the directional movement of the middle school students' physical quality how to influence domestic and foreign books and related literature, to understand the current status of research, exploration and mining of Orienteering on physical quality of positive effect of. After the analysis of data, this study provides a theoretical basis.

Experiment method
Experiment time is 7 weeks. Before the experiment, divided the students into two classes: the class one (experimental class), the class two (control class). On the physical fitness test and they did not contact the directional movement in the absence of a directional test, noting the test results. In two times per week in the gym class, a class oriented Teaching: teaching content as the campus orienting, directional relay, while class two in normal physical education teaching, two classes are not increasing mandatory training means. Two months later, on the two class of students to conduct a physical quality and directional movement test, noting the test results.

Statistic method
The end of the experiment, using Office EXCEL software to make tables, charts, analysis data statistics, draw the conclusion.

RESULTS AND DISCUSSION

In experiments and physical quality changes

<table>
<thead>
<tr>
<th>Target</th>
<th>100 meters(s)</th>
<th>shot (m)</th>
<th>two third level leapfrog (m)</th>
<th>800 m(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The class one before</td>
<td>16.27</td>
<td>8.56</td>
<td>3.88</td>
<td>197.65</td>
</tr>
<tr>
<td>the experiment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The class two before</td>
<td>5.97</td>
<td>8.58</td>
<td>3.96</td>
<td>196.10</td>
</tr>
<tr>
<td>the experiment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The class one after</td>
<td>15.90</td>
<td>8.66</td>
<td>4.01</td>
<td>191.83</td>
</tr>
<tr>
<td>the experiment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The class two after</td>
<td>15.74</td>
<td>8.67</td>
<td>4.03</td>
<td>194.65</td>
</tr>
<tr>
<td>the experiment</td>
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</tbody>
</table>

Before the experiment, two class students’ 100 meters, shot put, two third-level leapfrog three index difference is not evident, that two classes of upper limb explosive force, speed, explosive leg strength, coordination level; But in 800 indexes, class two students’ endurance quality is superior to class one’s while the indicators are better than class one. After the experiment, 100 meters, two shot, leapfrog three index difference is not big, but compared to before the experiment, class one student’s three indicators superior to class two, showing that the class one of upper limb in speed, explosive force, leg explosiveness, coordinated growth of greater than class two; and class one of 800 meters the index was superior to that of class two, class one’s endurance quality is better than class two; while after the
experiment four index relatively before the experiment has certain promotion, and class one’s indicators are better than the class two, showing that, after the experiment of physical quality is better than Class Two physical qualities, As shown in Table 1.

**Classes of average growth rate comparison before and after the experiment**

A figure 1 show that class one and class two physical fitness indexes, compared to before the experiment is improved. Class one of improved significantly improves more, while class two is litter. From class one and class two indicators comparison, 800 meters and two third-level leapfrog are the most obvious. Because the human body in the process of directional movement, body in all directions in motion, and along with the change of the teaching environment, the body to keep running, speed across a barrier, such as downhill motion, can make the speed, power, coordination, endurance and agility physical quality, especially the explosive leg strength, aerobic endurance and coordination have greatly increased, so that the basic quality to be fully exercise, so as to promote the sport ability, and thus the results, As shown in Figure 1.

![Figure 1: Two classes average growth rate comparison before and after the experiment](image)

**Classes of experiments after the index value comparison**

As you can see from Figure 2, class one’s 800 meter indicator value obviously. Description of Orienteering in improving students’ endurance quality has a unique role. Endurance quality is an important indicator that reflects human health status, according to China's constitution and health research group survey, our students' endurance quality shows downtrend of year after year, running is the effective means of improving endurance, but most students are not willing to participate in long-distance running. Investigating its reason: 76.7% of the students think that too tired, 30.4% of the students think boring. Because the traditional middle distance Race Teaching and training methods, only to run the distance of time, ignore the need for psychological counseling and guidance, so that students are weary, and often participate in the directional movement, the body will become more robust, walk, run, jump over obstacles, and endurance, speed, strength, flexibility, sensitivity of physical quality will be improved step by step, to the natural environment adaptability and resistance to diseases will continue to be strengthened, As shown in Figure 2.

![Figure 2: Experiment after the index value comparison](image)

**In experiments after two 800 meters compared**

As you can see from Figure 3, class two’s experimental curve before and after experiment near the coincidence, but class one before and after experiment two curves have separate trend, a description of the experimental class one 800 meters of growth than the class two clear. This is because the directional movement of endurance project, because the directional movement times, some short needs 10 minutes, some long for more than 1 hour, the test is generally about 30 minutes. And with the difference of general game projects, directional players not on the flat track for cross-country running, it requires the player to continue to overcome surface resistance, such as slope, obstacles, so the endurance quality requirements are relatively high, As shown in Figure 3.
CONCLUSION

From the experimental test results indicate that the directional motion curriculum for improving students' physical quality has very good effect. Class one and class two physical fitness indexes, compared to before the experiment is improved. Class one of improved significantly improves more while class two is litter.

Visible that school begins with our unique fun orienteering, can improve the students physical quality and the load bearing ability of the students' physical quality. It will produce positive effect to sensitivity, coordination, flexibility, physical strength, speed and stamina; Campus Orienteering development, not only can effectively improve students' aerobic stamina and endurance running capacity, and to relieve students' middle and long distance movement pressure also has a positive significance.

According to the students' physical and psychological characteristics of the development and awareness of need, optimize teaching content, textbook reform, textbook diversification, entertainment, fitness, interest and culture combination; School should be based on students need for dominant, for students to create a higher value; to make full use of external environment, allowing students to get close to nature, it can stimulate their interest and passion in orienteering. In the middle distance running teaching and training of reasonable, appropriate to wear to the movement of the inserted content, in order to increase the teaching and training of the interest, avoid the formation of tedious order. Pay attention to the sharing of resources, make full use of the campus, the park development, can alleviate the shortage of school sports venues.

Strengthen the directional movement of the publicity and promotion of orienteering, make better and faster into the classroom in primary and middle school. The cross-country race into middle school games to increase students, the exercise value and interesting, challenging, let more students know the directional movement, like the directional movement, active participation in orienteering.

REFERENCES