# Physical Education Curriculum Reform of Navigation Major in Higher Vocational Colleges under the "Double High Plan"

## Bo Zhanga, He Gao

Department of Basic Courses, Hubei Communications Vocational and Technical College, Wuhan, Hubei, China

<sup>a</sup>86573354@qq.com

**Keywords:** Navigation Major in Higher Vocational Education, Physical Education and Health, Curriculum Teaching Reform

**Abstract:** The reform of physical education teaching of navigation specialty in higher vocational education must set up the concept of strengthening students' physique, enhancing students' psychological health, strengthening students' lifelong physical education, promoting the coordination and beautification of students' body shape and improving students' psychological quality. It must closely combine the characteristics of specialty and occupation.

## 1. Introduction

The Decision of the Central Committee of the Communist Party of China and the State Council on Deepening Educational Reform and Promoting Quality Education in an All-round Way clearly points out that "school physical education should establish the guiding ideology of health first, strengthen physical education work, enable students to master basic sports skills and develop good habits of physical exercise". Based on the characteristics of navigation profession, such as turbulence, risk, hardship and independence, the physical education reform of navigation major in higher vocational colleges must highlight the characteristics of navigation profession and strive to improve the quality of navigation talents to meet the requirements of navigation profession for talents' adaptability[1].

## 2. Integrate the Characteristics of Navigation Major into Five Main Principles of Curriculum Contents

The physical education teaching of navigation major in higher vocational colleges should highlight the characteristics of navigation major and follow the five main principles of curriculum contents in the "Guidelines for Education Teaching in Colleges and Universities" issued by the Ministry of Education. Physical education teaching of navigation specialty in higher vocational education must take fitness as the core, focus on the basic objectives of sports participation, sports skills, physical health, mental health, social adaptation and other courses, and implement education in terms of improving health, strengthening physique, cultivating students' sports consciousness and habits, unity and cooperation, obedience consciousness, hard work and adaptability to the environment. Including physiology, psychology, health care, medical treatment, etc. Teachers may carry out multidisciplinary education, abandon the traditional teaching contents, increase new knowledge in line with the development of education, reduce practice courses of competitive sports. It is recommended to set up water sports according to the characteristics of this specialty, for example, swimming, diving, water first aid and survival training[2]. At the same time, it is necessary to arrange some basic theoretical courses of physical education and health related to navigation specialty, which expands the knowledge of physical education and enhances cognitive ability to meet the needs of students' fitness and adaptation to navigation profession.

DOI: 10.25236/iche.2022.074

## 3. Combine Teaching with Occupation-related Skills

Physical education teaching of navigation major in higher vocational colleges should be combined with occupation-related skills naturally. Physical fitness teaching of navigation major in higher vocational colleges must be combined with vocational skills as far as possible. Take swimming teaching as the example, it should be combined with diving, water first aid and survival courses; when training the balance between the body and mind, it should be combined with wave bridge, rotary wheel; when teaching javelin, it should be combined with cable skills training and so on[3]. Because of the differences between the higher vocational education and other professional education in ordinary colleges and universities, especially in view of the particularity of navigation vocational education, it is limited by the length of schooling, which makes the total teaching hours of physical education courses less[5]. Therefore, in order to combine the physical education teaching closely with the vocational skill training of navigation specialty, we suggest choosing the teaching mode of "clubs", that is, in the first grade, according to the school's daily teaching arrangements[6]. In addition to the implementation of compulsory sports teaching, elective sports teaching should also be arranged in after-school time, which supplements the lack of credit hours.

## 3.1. Teaching Arrangements for Compulsory Items

First of all, when determining the compulsory items, we should choose the sports items closely related to navigation specialty to teach. Because the professional ability of navigation specialty is different from the ordinary one, it requires very high professional skills of employees, and also has international standards, which is determined by the special requirements of students' future working environment and conditions, and the special features of their work[4]. They must learn to swim, water survival and first aid, ladder climbing and other skills, they can maintain the balance of body and brain in the storm, work without the fear of seasickness. For instance: 1. Ladder climbing, pole climbing-ascending the mast, soft and hard ladder climbing, hull maintenance; 2. Body balance, anti-dizzy-wave bridge, rotary wheel; 3. Throw the discus on the spot, -withdraw the cables, etc. Therefore, choosing the items and contents combined with occupation and training the basic physical activity ability required by occupation can not only achieve the purpose of fitness and health, but also improve students' adaptability to occupational environment and conditions. Although some of these projects are competitive, they are exciting and thrilling[1]. They can also meet the students' physical qualities and skills required by navigation vocational and technical education, laying a foundation for students' skills such as climbing, balance, anti-dizziness, boat handling, cable lifting and sailing.

## 3.2. Teaching Arrangements for Elective Courses

Elective projects should also be combined with the characteristics of the major as far as possible, using after-school time (extra-curricular or off-campus) to implement teaching. Through the establishment of various clubs, the teaching of elective courses is carried out to cultivate students' team spirit, exercise their will and meet the needs of semi-military management of the navigation profession. Because there are a variety of clubs, the choice of sports is large, and most of the projects are interesting and challenging, which are popular with students. Students can freely join various clubs according to their hobbies, such as ball games, field survival training, directional (according to azimuth) sports, rowing and so on[7,8]. Through these exercises, students can enjoy themselves, achieve the purpose of fitness, mental health, fitness and enhance the ability to adapt to the occupation.

### 3.3. Arrangements of Physical Education Theory Teaching

Despite the compulsory and elective courses of navigation major in higher vocational colleges. We should attach importance to the combination of theory and practice, pay attention to the infiltration of relevant theoretical knowledge in sports practice teaching, and use various forms and modern teaching methods to implement theoretical teaching. In the first grade, about 10% of the theoretical teaching contents (about 4 hours per semester) is arranged, such as modern health

standards, modern health concepts, health care, health promotion methods, health care, disease prevention, etc. Special lectures are offered to enhance students' awareness of physical exercise, habits, abilities and other knowledge of physical education and health[1,2]. The curriculum design of physical education for navigation majors is as follows: (Table 1)

Table 1 Curriculum design of maritime physical education.

Serial number	Modules	Teaching content	Class hour	type
1	Basic Theory	A Survey of Physical Education Courses for Navigation Majors	2	Compulsory
		General knowledge of sports health care	2	
2	Professional Body Quality Training	Endurance training (middle and long distance running, etc.)	4 (Semester 1)	
		Upper and lower limb training (ladder, soft ladder, soft rope climbing, high jump and other training)	8 (First Study Year)	Compulsory
		Sensitivity training (10m × 4 round-trip running, etc.)	4 (Semester 1)	
		Skill training (grappling)	2	Optional
3	Anti-corona simulation Training	Fuhu rotation training	4	
			(Semester 2)	Compulsory
		Langmu Training	4	Optional
		Obstacle sports (crossing a single-plank bridge on water, etc)	4	Optional
4	Professional Skill Training	Maritime lifesaving skill training (use of lifesaving equipment, first aid at sea, launching and operation of lifeboat)	12	Optional
		Fire fighting skill training (wearing of fire fighting clothes, use of water throwing belt and fire extinguisher)	8	Optional
5	Water Skills Training	swim	16	Compulsory
		Diving (HELP position)	4	Compulsory
		Over-floating plate	2	Optional
		Water survival and rescue	2	Compulsory

### 4. Establish the Teaching Assessment System to Evaluate Students' Achievements

Establish the teaching assessment system of physical education courses for navigation majors in higher vocational colleges, and evaluate students' achievements scientifically and objectively. The purpose of establishing physical education and fitness education system is to promote health. Therefore, in order to truly apply the modern physical education teaching concepts of healthy sports, joyful sports, lifelong sports and active sports to physical education reasonably, and effectively improve students' physical quality, physiological function, psychological quality and adaptability, so as to meet the requirements of seafarers' physical quality. It is necessary to establish reasonable and effective performance appraisal system. It is difficult to consider the majority of students to change the previous physical assessment, which is based on the standard and technical assessment to evaluate students' performance, and some evaluate students' performance by individual sports quality[9]. Therefore, it is necessary to establish a complete and scientific assessment and evaluation system. It is not difficult to master the assessment of compulsory items, including the theoretical assessment criteria. As long as we stick to the main line of fitness, the assessment requirements are neither high nor low. It not only reflects the goal of hard work, but also reflects a certain degree of difficulty. The vast majority of students can meet the assessment criteria as long as they exercise hard. According to the degree of each student's participation in physical exercise and physical theory lectures, objective and fair performance evaluation are mainly to encourage students to participate in physical exercise consciously and actively, so as to achieve certain fitness and

health effects. At the same time, the physical condition of students can also be included in the scope of physical education assessment, which is conducive to a comprehensive evaluation of their overall quality[3]. Finally, the above evaluation results are sent to the Physical Education Teaching and Research Office to give comprehensive assessment results. In short, the assessment results of compulsory items are scored by assessment, and the assessment results of elective items are scored by evaluation. The ratio of assessment results between them is suggested to be 8:2.

#### 5. Conclusion

The reform of physical education teaching of navigation specialty in higher vocational education must set up the concept of strengthening students' physique, enhancing students' psychological health, strengthening students' lifelong physical education, promoting the coordination and beautification of students' body shape and improving students' psychological quality. It must closely combine the characteristics of specialty and occupation. Teachers should have new perspective of physical education teaching of navigation specialty in higher vocational education, so as to realize the general goal of navigation sports[7]. It explores the way to guide the contemporary higher vocational college students majoring in navigation to carry out reasonable and effective physical fitness activities and enhance their physique, so as to lay a solid foundation for better serving the navigation cause of the motherland in the future.

## Acknowledgements

Fund project: the general project of Hubei Communications Vocational and Technical College School Social Service Ability under the "Double High Plan" Construction research (project number: Y20200010).

### References

- [1] National Normal University Sports Association. Research on School Physical Education. Beijing: People's Sports Press, 2000.
- [2] Zhang Song, Liu He. Discussion on the Curriculum System of Physical Education and Health for Maritime Majors [J]. Maritime Education Research, 2002 (2): 64-65.
- [3] Weizhong Shi. Analysis of Physical Education Teaching Reform in Higher Vocational and Technical Colleges. Journal of Wuhan Institute of Physical Education, 2011
- [4] Zheng Tao. Discussion on the Current Situation and Development of Physical Education Teaching Reform in Colleges and Universities. Journal of Hubei Correspondence University, 2012
- [5] Zhou Xinliang. Research on the Current Situation and Countermeasures of Physical Education Reform in Colleges and Universities [J]. Sports World (Academic Edition), 2014
- [6] Lin Zhijun. Research and Practice of Higher Vocational Physical Education Teaching Reform Based on Vocational Ability Training [J]. Contemporary Sports Science and Technology, 2014 (28).
- [7] Gong Zhengwei. Physical Education Teaching Theory [M]. Beijing: Beijing Sport University Press.2012
- [8] Wu Changwen, Yu Kuilong. Target Orientation of Physical Education Teaching Reform in Colleges and Universities in China. China Adult Education, 2007 (12): 69.
- [9] Hu Jianyun et al. Analysis of the Current Situation of Physical Education Teaching in Colleges and Universities and Ideas of Curriculum Reform. Anhui Sports Science and Technology, 2009 (1): 95.