

Acomparative Study of the Public Physical Education Curriculum System in Vocational Colleges Across the Taiwan Straits

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Abstract: This paper uses the methods of literature, field survey, comparative analysis, data analysis and other methods, combined with the focus of 19 representative vocational colleges on both sides of the Taiwan Straits, to conduct a more comprehensive comparison on the guiding ideology, curriculum objectives, credit settings, curriculum evaluation, curriculum content and other aspects. The research found that: enhancing physical fitness and mastering sports skills are common, and the mainland focuses on "lifelong sports", Taiwan values the health of all people; The course focuses on sports, and the content is the combination of professional practicality and Internet plus in the mainland, and Taiwan focuses on physical fitness, dance and outdoor health management; The development trend of the public physical education curriculum in the mainland is toward the "integration in and out of class" model, and the deep development trend of the sports option model dominated by interest in Taiwan; On the consensus of curriculum evaluation on both sides of the Taiwan Straits, the proportion of sports skill evaluation is the largest, the proportion of summative evaluation is high, and the proportion of process evaluation is low. Suggestions: The curriculum goal should focus on the whole person, clarify the goals at different levels, and highlight the characteristics of the college curriculum; The course content should be based on the traditional development of fashion and life courses, integrating online and offline to expand the class hours; The curriculum model should be refined, perfected and compatible, and the empirical curriculum effect should be promoted; Course evaluation should add process evaluation links and focus on "four combined evaluation".

1. Introduction

Cross-strait culture is of the same origin, and Taiwan vocational colleges have earlier crossed the development stage of vocational undergraduate. Analyzing the similarities and differences of the public physical education curriculum system of Cross-Strait vocational colleges has time significance for clarifying the development trajectory of public physical education curriculum of Cross-Strait vocational colleges, summarizing the reform and development problems of higher vocational public physical education curriculum in the new era, and improving the sustainable development goal of higher vocational public physical education curriculum system. There are many technical and vocational colleges on both sides of the Taiwan Straits[1-2]. What are their respective public physical education curriculum system structure and historical development track? What are the current situation and problems of their respective operation? How to optimize and further build the path of public physical education curriculum system in line with the mainland's reform and development? This paper interviewed Chen Jiakang, leader of the Physical Education group of Qiaoguang University of Science and Technology, inspected the current teaching situation of physical education in Chienkuo Technology University, and further understood the development of physical education courses in vocational colleges in Taiwan; Comparative analysis was made on the curriculum objectives, curriculum content, curriculum implementation and curriculum evaluation of physical education courses in vocational colleges across the Taiwan Straits[3-4]. The research draws on the achievements of many years of PE teaching reform and innovation in national higher

vocational colleges, which is conducive to the strong inheritance of excellent elements of public PE teaching in mainland vocational colleges, and has practical significance for reference in the reform and development of public PE curriculum system in mainland vocational colleges in the new era[5].

2. Commonality and differentiation: Comparative analysis of curriculum objectives

Enhancing physical fitness and mastering sports skills are common goals. Mainland China emphasizes "lifelong sports," while Taiwan focuses on holistic health. Figure 1 shows the comparative analysis of curriculum objectives of vocational colleges across the Taiwan Straits. In the top-level design of objectives, the mainland gradually focuses on professional physical fitness and career development, while Taiwan shows independence and characteristics toward high-quality and exquisite development. All of the syllabus objectives emphasize the mastery of sports skills to enhance physical fitness or health, while the mainland attaches great importance to the cultivation of "lifelong sports" habits and the improvement of vocational and social adaptability [6-7]. Taiwan attaches great importance to the whole person's health concept, focusing on interest inspiration, sports experience, sports habit formation and the mastery of modern sports theory consultation.

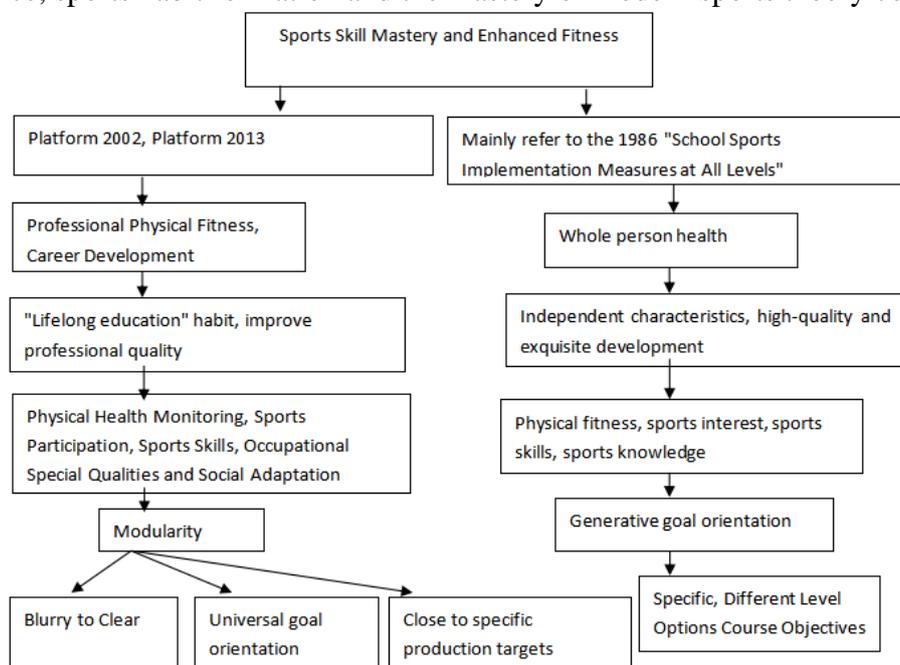


Fig. 1 Comparative analysis of Physical education curriculum objectives in vocational colleges across the Taiwan Straits

The curriculum objectives of vocational colleges in Taiwan are elaborated from four aspects: physical fitness, sports interest, sports skills and sports knowledge. The mainland vocational colleges elaborated the curriculum objectives mainly through physical health monitoring, sports participation, sports skills, vocational special sports quality and vocational social adaptation[8-9].

For example, the physical education course at Chienkuo Technology University embodies the school's sports concept of "high quality and excellence." Its goal is to achieve "moral, intellectual, physical, social, and aesthetic holistic education." The physical education curriculum aims to cultivate students comprehensively, strengthen their physical fitness, and provide step-by-step guidance tailored to their grade level. Additionally, it promotes a sense of group responsibility, enhances the physical fitness of faculty and staff, teaches students sports skills, fosters lifelong habits of loving sports, and highlights the university's physical education philosophy and the distinctive features of its physical education program. In the cross-strait sports option curriculum objectives, the mainland higher vocational colleges put forward the module curriculum objectives [10-11]. And according to the corresponding module to work out the corresponding specific known target and understand target, take Zhejiang Technical Institute of Economics as an example: module one is the basic theoretical

knowledge of physical education, the weight ratio of the overall curriculum objectives is 10%; Module two is sports skills, has a weight ratio of 45% in the overall curriculum objectives; The module three is physical health, and the weight ratio of the overall curriculum goal is 25%; Module four is the ability of sports skills and the cultivation of conscious exercise habits, and the weight ratio of the overall curriculum goal is 20%; Module five is vocational fitness, has a weight ratio of 45% in the overall curriculum objectives (Module two and Module five are alternating sections); Each module is divided into sub-target synthesis, respectively: known target for 11; understand target for 15; known identification for 7; understand identification for 11. The goal of optional curriculum in mainland China has gradually changed from vague to clear, from focusing on the universal goal orientation to the concrete generating goal; However, Taiwan’s technical and vocational colleges are more specific, and the generative goal orientation is more prominent [12-13]. For example, Taiwan National Chin-Yi University of Technology will be divided into basketball, advanced basketball to competitive basketball, the development of different levels of options curriculum objectives.

3. Popularization and Deepening: A Comparative Analysis of Curriculum Contents

Competition is a compulsory course in public physical education courses across the Taiwan Strait, including elective courses and special class physical education courses including elective courses and special classes of physical education courses, the content of the mainland North career practical and Internet + combination, Taiwan focus on physical fitness, dance and outdoor health management [14-15].

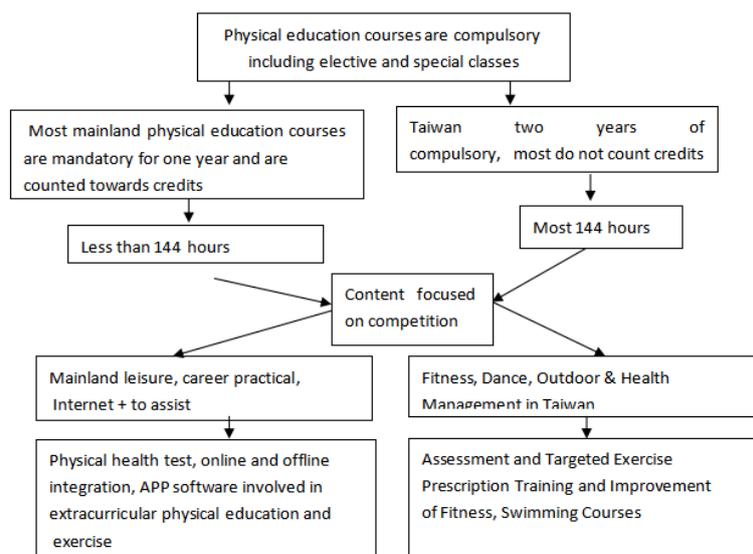


Fig. 2 Comparative analysis of physical education courses in vocational colleges across the Taiwan Straits

Figure 2 is a comparative analysis of the curriculum content of vocational schools across the Taiwan Straits. Most mainland physical education courses are mandatory for one year and are counted towards credits. Most schools in Taiwan require two years of compulsory education and do not record credits. Physical education courses on both sides of the Taiwan Strait are compulsory courses, including elective courses and physical education special education classes; Mainland physical education courses are counted towards credits, most schools in Taiwan do not count credits; Mainland physical education courses less than 144 hours, according to the higher vocational public physical education courses not less than 108 hours of the criteria, the current mainland higher vocational colleges and universities have not yet reached the criteria; According to the educational system in Taiwan, most of the students have two years of compulsory 144 hours, the physical education courses in the higher vocational colleges in Mainland are counted credits [16].

According to the data from the Sports Department of the Ministry of Education of Taiwan, as for

the overall colleges and universities, in terms of public schools, 28 universities and colleges implement the compulsory physical education course. The majority of private schools are two-year compulsory, with a total of 71 schools implemented. All schools offer sports special education classes and sports theory related courses [17].

The physical education courses in Mainland China's higher vocational colleges mostly choose their own specific teaching contents. They are mainly based on the traditional sports such as basketball, volleyball, football, table tennis, badminton, tennis and aerobics, with the support of the new sports dance, cheering, yoga and taekwondo. To incorporate activities such as orienteering, rock climbing, outward bound training, aerobics, and bodybuilding as extensions of the program, aiming to develop students from multiple perspectives and in various directions [18-19]. The opening of the content is also gradually distinct and distinctive. Many leisure sports and practical sports items have entered the campus. The body shaping, attack and defense and flexibility, appreciation and leisure items represented by the professional quality development module have combined the emerging sports and leisure items with a new perspective into the students of higher vocational colleges, and gradually lead the wave of the reform of the content of higher vocational physical education courses.

Internet + has also gradually influenced the teaching of higher vocational physical education courses. Online learning of physical education courses, "online and offline integration", and extra-curricular physical exercise combined with APP software are actively building a new concept of "integration of both inside and outside the class", and creating new forms for the active development of campus sunshine sports activities.

According to the statistics of the 101 school Sports annual report of the Sports Administration of the Ministry of Education of Taiwan, the total number of classes in the first semester of physical education courses in the 101 school year is 11,639 classes, and the total number of classes in the second semester of physical education courses is 11553 classes [20].

In the academic year of 101, 126 colleges and universities offered elective courses in physical education. The types of physical education courses offered were competitive sports, with a total of 161.

With the rapid development of Taiwan's economy, the development of physical education courses in its vocational colleges is closely in line with that of Western society. Among them, all schools set up physical fitness courses and carry out physical fitness tests, assessment and targeted exercise prescriptions to cultivate and improve students' physical fitness. Swimming courses are also very common in vocational colleges, and all schools make full use of school and off-campus resources to carry out the study of this course, and the course is upgraded to the level of emergency and life-saving measures. However, at the second level of composition, sports are more influenced by Western practices and are built upon traditional sports with a broad appeal. Activities such as softball, baseball, golf, bowling, billiards, and others serve as supplementary elements of a modern leisure sports system. In the third level, aerobic dance, fitness sculpture, self-defense, Aikido, karate, MV hot dance and other contents that are in line with modern and fashionable young sports items gradually combine the contemporary nature of Taiwan young people's advocacy of the trend with the current life closely, which has positive social significance.

4. Width and Depth: A Comparative Analysis of Curriculum Implementation

The public physical education courses in Mainland China are evolving towards integrating in-class and out-of-class activities. In Taiwan, the development trend focuses on a sports elective model driven by students' interests.

Figure 3 is a comparative analysis of the implementation of courses in vocational colleges across the Taiwan Straits. Mainland vocational colleges have implemented different physical education models according to their own characteristics. The main ones are: the whole physical education course model, programmed teaching module, the teaching mode of combination of exercise option course and professional physical ability, these teaching modes are independent physical exercise during the post practice period respectively; Combination of sports skills and professional accomplishment; Targeted professional physical training; Especially in extra-curricular physical education, morning

exercises, physical fitness testing, extra-curricular physical exercise, sports associations, sports competitions and other content covered, expanding the ductility of physical education course, towards the "in-class integration" in the direction of the course model.

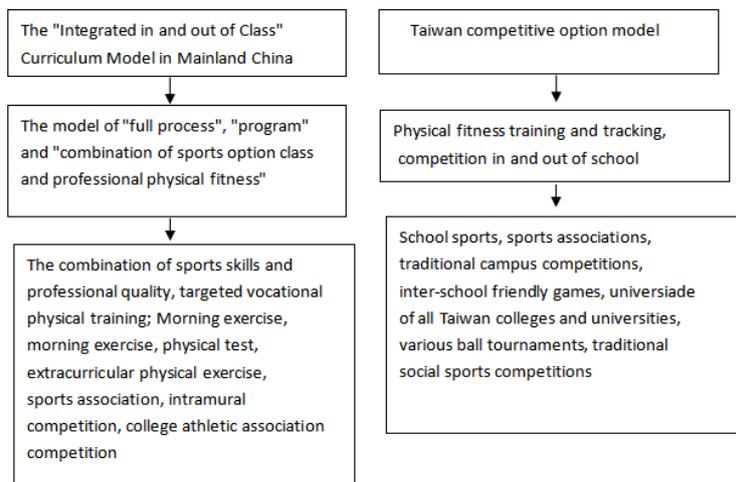


Fig. 3 The comparative analysis of the implementation of physical education courses in vocational schools across the Taiwan Straits

Vocational colleges in Taiwan mainly carry out the compulsory and optional teaching mode of sports elective courses with interest. The physical education course system is composed of various elements, including fitness card tracking and targeted training for students' physical fitness, school sports, sports clubs, traditional campus sports competitions at each school, inter-school sports friendship events, the Universiade, and various ball tournaments organized by universities and colleges in Taiwan. Additionally, traditional social sports competitions, such as marathons, contribute to this comprehensive system.

According to Taiwan Ministry of Education Physical Education Bureau's Annual Report of School Physical Education for the 101 Academic Year, 154 schools, accounting for 95.06% of Taiwan, organized sports activities in the 101 Academic Year. The second is (health and fitness promotion activities), 148 schools, accounting for 91.36% of the total; A total of 145 schools, representing 89.51% of all schools in Taiwan, participated in regional inter-school sports activities and sports competitions.

5. Promotion and Emphasis: Comparative Analysis of the System of Evaluation

The proportion of the system of evaluation on both sides of the Taiwan Strait is not consistent, the commonness is that the proportion of motor skills are the largest; Mainland China will be included in the physical fitness test scores of the system of evaluation, some of the physical fitness test scores affect graduation; In Taiwan, swimming is required to be measured and assessed. Taiwan put forward clear requirements in learning spirit and sports ethics, while the mainland put forward clear requirements in learning attitude and curriculum ideology.

Figure 4 is a comparative analysis of the system of evaluation of vocational schools across the Straits. The evaluation system of physical education course in Mainland China is developing towards the combination of process evaluation and summative evaluation. The proportion of the system of evaluation is not the same, in which the evaluation of sports skills and professional sports skills is the largest proportion, followed by the study attitude, extracurricular physical exercise, and finally the theoretical and physical standards test. It is a new tendency for higher vocational colleges to include the results of physical fitness test in the system of evaluation. The inclusion of extra-curricular physical education into the evaluation system will gradually extend the physical education course from the classroom to the extra-curricular, students' exercise will be more guidance and flexibility, and provide the system guarantee for the "sunshine sports" and "exercise for one hour every day." To provide a workable solution to the current situation of insufficient hours of physical

education course, and for the reform of ideological and political education of physical education course, the training of personnel will be gradually transferred from the theoretical promotion of physical education to the course practice, the relevant assessment ratio will also be included in the course assessment.

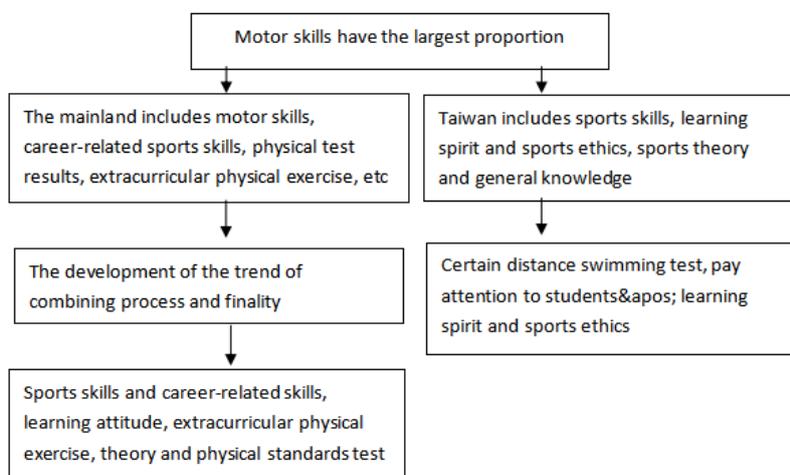


Fig. 4 Comparative analysis of the system of evaluation of physical education courses in vocational schools across the Taiwan Straits

Taiwan's vocational colleges mainly include sports skills, learning spirit and sports ethics, sports theory and common sense of three parts, the proportion of each school is inconsistent, but the largest proportion is sports skills, the second is learning spirit and sports ethics, the last one is sports theory and common sense. All schools must complete a distance swimming test at the end of the final assessment; The results of physical education course of some students will be evaluated by the coaches according to their participation in training and competition. Emphasize students' learning spirit and sportsmanship, and establish basic evaluation criteria based on their strengths and weaknesses. Students who miss more than one-third of the total physical education classes will not receive a grade. Certificates and trophies will be awarded to students with the best physical education performance in each academic program.

6. Perfection and Breakthrough: Discussion and Suggestion on the Comparison of Curriculum System

In summary, the public physical education course systems in vocational schools across the Taiwan Strait demonstrate unique developmental approaches and characteristics. In pursuing the sustainable development of curriculum structures, both sides can learn from each other, gradually optimize, and deeply explore the connotations of each level within the curriculum system, ultimately forming mature and well-rounded programs and models.

6.1. Curriculum objectives should focus on the whole person, clarify the objectives of different levels, and highlight the characteristics of the curriculum of the institution

Enhancing physical fitness and health has become the consensus of both sides of the Taiwan Straits. It is a tendency to improve the core quality of public physical education courses for vocational students. The mainland is more toward the content development of vocational courses. "Ideological and political curriculum" and "three-dimensional education" are integral components of the curriculum. In contrast, Taiwan focuses on in-depth teaching and the refined development of sports education.

The mainland needs to further improve the physical education course goals to make it more malleable, multi-dimensional, targeted; More consideration should be given to the characteristics of higher vocational colleges in the design,. It is difficult to highlight the characteristics of physical education course in higher vocational colleges by using different levels of goal setting to form a

reasonable cascade, hierarchical structure, and constitute a complete curriculum system to avoid single, homogeneous situation.

6.2. Course content should be based on the traditional development of fashion and life courses, online and offline integration to expand class hours

To meet the current criterion of no less than 108 class hours, higher vocational education in Mainland China can address this requirement by increasing the class hours of compulsory physical education courses or expanding both online and offline physical education programs. Zhejiang Vocational College of Finance implements an "online and offline" integrated teaching mode, utilizing modern educational technology to enrich online learning content and extend the total duration of physical education instruction. Wuhan Vocational and Technical College enhances extracurricular sports training opportunities and time through on-the-job practice during sports activities and mobile apps, such as running software. Nanjing Vocational and Technical College of Industry integrates its curriculum system by organizing regular, fixed-point, and quantitative morning exercises, including running and related activities, for first- and second-year students.

The development of sports events closely related to fashion life in Taiwan can be more concerned with the students' times, and the swimming courses related to life and health should be further paid attention to, and resources should be developed into the courses to prepare for unexpected needs. It is the most important task for the reform and development of higher vocational physical education course in China to cultivate students' sports core accomplishment. The covering and exploring of the content of higher vocational physical education course should face the broader field of "Dynamic Quotient" with higher vocational characteristics. The focus of the perspective should be shifted to the improvement of individual physical health, monitoring and exercise prescription, and the professional support for student health and career development should be provided from the most basic and critical point.

6.3. Curriculum Model Should Be Refined and Perfected, Compatible, Empirical Curriculum Effect and Promotion

Throughout the two sides, no matter what kind of physical education teaching model is implemented, its final destination is always concerned about the development of the whole person. At present, the reform of public physical education course system in higher vocational colleges is in an excellent period. Part of it is continuing the traditional teaching mode, part of it is reforming the teaching mode of professional and practical physical education course. What kind of teaching mode is suitable for the current higher vocational education? Can it not only improve the sports skill level, but also improve the physical fitness level? Can they be compatible in the physical education course? The traditional physical education course teaching mode is certainly "invalid" does not conform to the times? Then the professional practical physical education course teaching model is successful or not? At present, there is no specific evaluation and reference. In the setting and teaching of physical education course, it is necessary to "empirical guide practice," to be based on a high level of reliable and credible evidence, to determine the effect of the course before implementation. The author's school and team won the second prize of Hubei Provincial Teaching Achievements in 2018, "Research and Practice of the Whole Process Physical Education Model in Higher Vocational Colleges," which initially formed the experience of physical education teaching practice in Hubei higher vocational colleges, and has certain promotion value and influence.

6.4. Curriculum Evaluation Should Increase Process Evaluation Link and Pay Attention to "Four Combined Evaluation"

On the consensus of curriculum evaluation across the Taiwan Strait, the proportion of motor skills evaluation is the largest, and the proportion of summative evaluation is higher. The proportion of process assessment is low and not perfect. It is suggested to improve the single assessment mode. In addition to sports skill assessment, it also needs to cover extra-curricular exercise, professional physical fitness, physical fitness test, sports attitude and so on. In the physical education course assessment, we should pay attention to the combination of physical teaching and professional physical

fitness quality. Independent extra-curricular exercise combined with online interactive learning assessment; Extracurricular sports club activities, sunshine sports, sports culture festival, post training stage physical exercise and in-class physical education combined; The comprehensive evaluation of the combination of occupational physical fitness and physical health progress, pays attention to the formation of students' physical differences, pays attention to the positive direction of the concept of participation in exercise, participation process and self-exercise.

The improvement of assessment mode makes the physical education course tend to be richer in duration and content, and the participation scope is wider. Students can choose the way to participate in the exercise according to their own abilities. The teaching format has evolved from traditional classroom-based instruction to an integration of in-class and out-of-class activities, incorporating diverse methods. Given the relatively low compliance rate with higher vocational physical health standards, integrating physical health test results into the comprehensive evaluation of physical performance will help guide and supervise students' self-exercise efforts effectively.

7. Conclusion

The physical education course in higher vocational college is independent and has its own valuable system. The physical education in higher vocational college should pay attention to the main body characteristics of students, first of all, lay emphasis on the cultivation of human beings, promote the harmonious development of human beings, and improve their professional abilities and comprehensive qualities. [10] The public physical education course system of higher vocational colleges across the Taiwan Strait has its own developing characteristics, and there is also a large room for improvement. It is necessary to improve the present situation of traditional sports teaching, to lead the physical education course system and the development of campus sports, and to open up the vocational sports in line with its own characteristics.

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