

Research on the Current Situation and Countermeasures of Organizational Management of High-Risk Sports Projects in Shanghai Universities

Kai Da^{1, a}

¹Physical education Department of Shanghai Maritime University, Shanghai, 201306, China

^akaida@shmtu.edu.cn

Abstract: This study focuses on the organizational management of high-risk sports in Shanghai universities. From the perspective of management, it includes four basic elements: management subject, management object, organizational purpose, and organizational environment or conditions. Based on this fundamental principle, this paper conducts a thorough investigation and discussion on the management of high-risk sports education in universities, physical education instruction by teachers, and students' physical exercise habits from four perspectives: awareness, implementation, achievement, and existing issues, using physical education teachers and students from selected universities in Shanghai as the research subjects.

Keywords: High-risk, Sports projects, Management status.

1. Research Purpose and Significance

An important characteristic of the development of curriculum reform in higher education is to fully emphasize the realization of personalized education for students, to cultivate students' personalities through education, and to unleash their individuality. The reform direction of university physical education courses should also reflect the characteristics of individuality. Only by fully respecting students' personalities and their subject status can their initiative and enthusiasm for learning be mobilized, and it can be conducive to cultivating their innovative spirit. The introduction of high-risk sports into university sports is an important way for personalized education of students. The author conducted a survey and research on the current status of high-risk sports projects in Shanghai universities, with the aim of finding a scientifically reasonable organizational management model and healthy development path suitable for the development of high-risk sports in universities.

2. Research Objects and Methods

With physical education teachers and undergraduate students from 17 universities as the research subjects and methods such as literature data method, expert interview method, on-site observation method, questionnaire survey method, mathematics statistics method, and logical analysis method, this paper conducted a survey and research on the current situation of high-risk sports in Shanghai universities. The paper also analyzed the factors that constrain the development of high-risk sports in Shanghai universities and proposed development strategies for high-risk sports with the aim of promoting and popularizing high-risk sports for the

healthy development of Shanghai universities.

2.1. The literature data method

by data retrieval, reviewing literature related to this study, and organizing and collecting research results and academic information in related disciplinary fields, lays the theoretical foundation for this research. To collect relevant information for this study, literature searches were conducted using databases such as the China Academic Journals Full-text Database and the China Master's Theses Full-text Database. A total of 98 articles were retrieved using the keyword "high-risk sports," and a further search was conducted using the title "universities" in the results, resulting in 59 relevant articles being obtained. The search also included courses, clubs, and outdoor sports such as "swimming," "rock climbing," "outdoor sports," and "roller skating." Based on the collected literature, the researchers conducted an analysis and organized the relevant academic information, using the research achievements of previous scholars as a reference for this study.

2.2. Questionnaire Survey

This study used a self-designed questionnaire, carefully selected 20 indicators as survey content. The questionnaire was distributed to 300 undergraduate students from 17 selected universities, and 283 were returned, with a response rate of 94.3%, of which 279 were valid, with an effective rate 98.6%. A total of 100 questionnaires were distributed to teachers, and 98 were returned, with a response rate of 98%, of which 98 were valid, with an effective rate of 100%. The basic distribution and recovery of the questionnaire are shown in Table 1.

Table 1. Questionnaire Distribution and Recovery Statistics Table

Survey Object	Questionnaire Distribution	Questionnaire Recovery	Valid Questionnaire	Response Rate	Response Rate
Teacher	100	98	98	98	100
Student	300	283	279	94.3	98.6

2.2.1 Validity test. In the process of designing the questionnaire, the project leader consulted 10 experts to evaluate the validity of the questionnaire. Based on their suggestions, the content, wording, and structure of the questionnaire were revised. Afterwards, the modified questionnaire was subjected to a validity test by the same group of experts.

2.2.2 Reliability Test.

The split-half reliability was used to test the reliability of the questionnaire, and the reliability coefficients were 0.798 for the teacher questionnaire and 0.832 for the student questionnaire.

2.3. Mathematics statistics method

The analysis of the collected data was mainly conducted using the SPSS statistical analysis software and Excel office software. The specific methods involved descriptive statistics, reliability tests, etc. The aim is to seek the relationship between research variables from the results of data analysis and use it as the basis for theoretical analysis.

2.4. Interview method

An interview outline was designed and interviews were conducted with relevant personnel. Telephone and face-to-face interviews were conducted with some sports department leaders and physical education teachers from aforementioned 17 universities, in order to gain a concrete, accurate and comprehensive understanding of the basic situation and existing problems of high-risk sports courses. The main content includes inquiring about what high-risk sports are offered by the universities, the organizational and management forms of these high-risk sports programs, opinions on the development of these sports courses, and strategies for managing the risks associated with the high-risk sports programs.

3. High-risk sports: Definition and value

3.1. Characteristics of high-risk sports

High-risk sports are mostly in the category of emerging sports, with characteristics such as excitement, challenge, and entertainment, but also with a high level of risk. Participants in these sports are required to bear greater risks than other sports, and may even pay the price of their lives.

3.2. The differences from traditional sports

Compared to traditional sports, high-risk sports require much higher requirements for sports venues, equipment, and facilities. It is necessary to create unique sports facilities and environments according to the needs of different types of high-risk sports to ensure the development of these sports. High-risk sports require more professional guidance and safety protection measures than traditional sports. Participants need to better learn and master the sports skills and self-protection knowledge and skills, and follow the operating procedures more strictly to participate in high-risk sports.

4. Current Situation of Organization and Management of High-risk Sports in Shanghai

4.1. Implementation of High-risk Sports in Shanghai Universities

4.1.1. Survey on the Types of High-Risk Sports Programs

The specific situation of high-risk sports programs offered by each surveyed university: Among the 17 surveyed universities, 13 of them have set up swimming instruction in various forms to provide opportunities for students to learn swimming. Regarding the format of swimming courses, 10 universities offered swimming elective courses for freshmen and sophomores. Among them, three universities offered swimming elective courses for juniors, seniors, and graduate students, while six universities offered swimming courses as a compulsory subject. Four universities offered swimming classes lasting for 4-6 weeks per semester due to limited class hours caused by the outdoor venue's climate constraints. In addition, Tongji University, Shanghai International Studies University, and Donghua University offered rock climbing courses, accounting for 17.6% of the surveyed universities. Shanghai University of Finance and Economics, East China Normal University, Shanghai University of Electric Power, and Donghua University offered wilderness survival or orienteering courses, accounting for 23.5% of the surveyed universities. Only 6 out of the 17 surveyed universities, including East China Normal University and Shanghai University of Sport, offered roller skating courses, accounting for 35.2% of the surveyed universities.

The survey results on the extracurricular high-risk sports activities of some universities in Shanghai showed that 11 universities offered extracurricular swimming activities, accounting for 64.7% of the surveyed universities. Roller skating associations were present at 9 Shanghai-based universities, including Tongji University, University of Shanghai for Science and Technology, Fudan University, Shanghai University of Finance and Economics, East China Normal University, Shanghai Jiao Tong University, Shanghai University of Sport, Shanghai University of International Business and Economics, and East China University of Science and Technology, accounting for 53% of the surveyed universities.

4.1.2. The ways in which high-risk sports are carried out in Shanghai universities

According to interviews with leaders responsible for physical education in Shanghai universities, it was found that high-risk sports programs are mainly conducted in small classes with no more than 30 students. The basic forms of teaching high-risk sports programs include: traditional classroom teaching, club teaching, extracurricular self-organized activities, and teacher-led extracurricular classes with fees.

Based on the survey of physical education teachers, it was found that high-risk sports programs in Shanghai universities are mainly carried out through traditional classroom teaching (88.2%), club teaching (58.8%), self-organized extracurricular activities (82.3%), and teacher-led extracurricular classes with fees: that is, teachers rent school sports teaching venues, use their spare time to offer sports projects that students are interested in, and charge appropriate

fees to students (33.3%). These four methods are used to implement high-risk sports projects. (See Table 2)

Table 2. Teaching methods for high-risk sports in Shanghai universities (N=17)

Teaching Methods	Traditional Classroom Teaching	Club-style Teaching	Extracurricular Self-directed Learning	Teacher-run Extracurricular Classes
Quantity	15	10	14	5
Percentage %	88.2	58.8	82.3	29.4

Due to the significant difference in the level of students who choose high-risk project courses and the relatively high skill requirements of these projects, many of which also have relatively high physical fitness requirements for students, individual teaching is often employed in the teaching process to accommodate the progress of the majority of students and for safety considerations. Individualized teaching methods place a greater emphasis on different expressions of individual differences, and use individualized teaching approaches to provide students with different levels of difficulty based on their varying levels of foundational skills.

Furthermore, group teaching involves dividing students into classes based on their pre-admission level, grouping together those with similar abilities. This approach allows teachers to tailor their lesson plans to the students' proficiency level, and minimizes the risk of students experiencing undue stress from significant differences in their abilities. Collaborative teaching is widely used in high-risk sports teaching. For example, mutual-aid collaborative teaching is adopted in projects such as rock climbing and roller skating, which can help students better understand the teaching content, promote the teaching atmosphere, and to some extent, alleviate the teaching pressure of teachers.

Through interviews with some teaching staff from various schools, the majority of respondents reported that the discontinuity of instructional settings and the lack of conditions for extracurricular practice have resulted in less than ideal teaching effectiveness. In the survey questionnaire for students regarding their mastery of project skills, only a few students indicated that they were able to fully grasp the learned content.

4.1.3. Analysis of students' cognition of high-risk sports

According to the data analysis, outdoor sports, diving, and swimming are the most popular high-risk sports among students, which is related to the recent trend of adventure. However, these three projects have high venue requirements, making it challenging to carry them out in the school's

existing facilities except for swimming.

4.2. Construction of emergency mechanism for high-risk sports injuries in Shanghai Universities

As the name suggests, high-risk sports are inherently more dangerous than ordinary sports projects due to the nature of their athletic activities. Therefore, how to avoid injuries and minimize injuries is of utmost importance in sports development. The emergency mechanism for sports injuries mainly consists of the following three aspects:

Firstly, the warning mechanism refers to monitoring and warning of safety incidents, with the aim of effectively preventing and avoiding the occurrence of social security incidents. This includes establishing emergency plans, conducting regular simulation exercises, and establishing social warning mechanisms. Among the surveyed universities, only 3 schools had established a warning mechanism, accounting for only 17.6%.

Secondly, the disposal mechanism refers to establishing specific response systems after safety incidents occur in order to minimize the damage caused by such incidents. The specific measures of the disposal mechanism include the immediate emergency handling of accidents by teachers, as well as the availability of emergency response plans that are complementary to the school's medical facilities and nearby hospitals. In almost all of the investigated institutions, both the sports administration departments and the school hospitals have corresponding contingency plans.

Finally, the recovery mechanism refers to gradually restoring the normal teaching status and teaching order after the crisis is resolved. Specific content includes post-evaluation, rewards, and accountability. Only 6 of the surveyed schools have specific documents regarding responsibility evaluation and accountability, accounting for only 35.2%.

Table 3. Multiple-choice Statistical Table of Restrictive Factors for High-risk Sports Conducted by Physical Education Teachers in Shanghai Universities (N=98)

Items	Number of Selections	Percentage of Total Selection Counts	Percentage of total sample	Ranking
Lack of attention from leadership	23	6.1%	23.5%	7
Weak student participation	14	3.7%	14.3%	8
Inadequate supporting protective measures	67	17.6%	68.4%	2
Limited training opportunities	43	11.3%	43.9%	6
Insufficient sports facilities	76	20.0%	77.6%	1
Inadequate emergency response plans	47	12.4%	48.0%	5
Unclear responsibility for accidents	54	14.2%	55.1%	4
High operational costs for sports programs	56	14.7%	57.1%	3
Total frequency	1460			/

4.3. Constraints on the development of high-risk sports in Shanghai universities

Restrictive factors for high-risk sports in Shanghai

universities were investigated from the perspectives of physical education teachers and students. As shown in Tables 3 and table 4, the main factors restricting the development of high-risk sports in universities are as follows:

Table 4. Multiple-choice Statistics Table on Factors Restricting Students from Participating in High-Risk Projects in Shanghai Universities (n=279)

Items	Number of Selections	Percentage of Total Selection Counts	Percentage of total sample	Ranking
Teaching Level of Teachers (due to teaching staff)	92	9.8%	33.0%	5
Facilities and Equipment	177	18.9%	63.4%	2
Lack of Competitive Platforms	73	7.8%	26.2%	7
Inability to Participate after Class	202	21.5%	72.4%	1
Safety issues	147	15.7%	52.7%	4
Poor Personal Fitness Foundation	158	16.8%	56.6%	3
Lack of Sports Atmosphere	89	9.5%	31.9%	6
Total frequency	938			/

4.3.1. Limitations of Sports Venues and Facilities

From the perspectives of both teachers and students, inadequate sports facilities are one of the most significant factors limiting the development of high-risk sports projects. Students perceive the lack of post-class opportunities to participate in sports as the most significant obstacle to the development of these projects. Many universities face limitations due to the aging and outdated condition of sports venues and facilities. Moreover, the cost of adding sports facilities often exceeds the budget allocated by the university. Therefore, sports venues pose significant limitations on the development of high-risk sports projects in universities. Many universities are unable to engage in sports due to the lack of conditions for the sports venues or equipment.

4.3.2. Inherent Risks of High-Risk Sports Projects

In the process of engaging in high-risk sports, the risks borne by participants are far greater than those of other sports projects. When participating in high-risk sports, students are under great mental pressure affecting their enthusiasm for participation. Some schools do not offer relevant courses, which hinders students who wish to participate. Several student clubs suffer from inadequate supervision from trained instructors and safety cannot be guaranteed. Additionally, some parents strongly oppose their children's participation in such activities due to concerns over potential dangers.

References

[1] li Qingmei. Research on the Current Situation and Countermeasures of Swimming Elective Courses in General

Universities in the Western Region of Guangdong Province [D]. Beijing Sport University, 2010.03

- [2] Ji Xiaolei. Analysis of the Advantages and Disadvantages of Rock Climbing in Universities[J]. Neijiang Science and Technology, 2008.11.
- [3] Song Tingting. Research on the Current Situation and Countermeasures of Inline Skating in Eight Universities in Shanghai[D]. East China Normal University, 2009.05.
- [4] Li Shengxi. Research on the Current Situation and Countermeasures of Outdoor Sports in Shanghai Universities[D]. Shanghai University of Sport, 2009.06.
- [5] Sun Xinxin. Feasibility Analysis of Offering Artificial Rock Climbing as an Elective Course in Universities[J]. Journal of Nanjing Institute of Physical Education, 2004.12.
- [6] Zhang Zhen. SWOT Analysis of the Development of High-Risk Sports Projects in Shanghai[J]. Sports Research, 2012.03.
- [7] Guo Jianwei. How to Prevent Accidents in Physical Education Teaching[J]. Popular Science, 2009.09.
- [8] Zhang Zheng. Research on Risk Analysis and Intervention of Sports in Chinese Universities[J]. Scientific and Technological Information, 2009.01.
- [9] Yu Xingzhou. Research on the Current Situation and Development Strategies of Swimming Teaching in Ordinary Universities in Heilongjiang Province[D]. Database of Chinese Excellent Master's Theses, 2011.
- [10] Chen Jianqiang, Zhang Zhen, Zhang Cui. Research on the Establishment and Improvement of Management System for High-Risk Sports Projects in Shanghai[J]. Sports Research, 2011.