



## Development of Youth Badminton Competition System in Guangdong Province, China

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### Abstract

**Background and Aim:** The study on optimizing the youth badminton competition system in Guangdong Province is mainly driven by two reasons: 1) Advancing the construction of the youth competition system is a crucial step towards integrating sports and education. 2) Several problems exist within the current youth badminton competition system in Guangdong Province, necessitating urgent solutions. This research objective was to develop the youth badminton competition system to align with the policy of deepening the integration of sports and education and to promote the healthy development of youth.

**Materials and Methods:** This study investigates the current status of the youth badminton competition system in Guangdong Province through a questionnaire survey. Utilizing the Delphi method, indicators for the youth badminton competition system in Guangdong Province are formulated. The SWOT analysis method provides developmental strategies for the youth badminton competition system in Guangdong Province. The scope of the study primarily focuses on the youth badminton competition system in Guangdong Province, with the primary survey samples consisting of 12 managers, 30 referees, 60 coaches, 150 athletes, and 19 experts.

**Result:** 1) The youth badminton competition system in Guangdong Province exhibits overlapping organizational structures, unclear objectives, and restrictive competitions. 2) According to expert opinions, there are four main indicators for the youth badminton competition system in Guangdong Province, mainly including Competition Objectives, Organizational Structure, Operations Management, and Competition Regulations. There are 15 secondary indicators and 38 tertiary indicators. 3) The developmental strategies for the youth badminton competition system in Guangdong Province are as follows: 1) It is recommended to establish a clear management organization. A specialized Youth Badminton Professional Committee for Guangdong Province should be set up under the coordinated management of the Education Department and the Sports Bureau. 2) Clear objectives are imperative. The construction of the youth competition system in Guangdong Province should commence with well-defined objectives. 3) The competition system is advised to encompass school-level, district-level, city-level, and province-level stages, forming a 4-level 10-tier model.

**Conclusion:** The youth badminton competition system in Guangdong Province exhibits overlapping organizational structures and unclear objectives. It is recommended to establish a clear management organization. There are four main indicators for the youth badminton competition system in Guangdong Province, mainly including Competition Objectives, Organizational Structure, Operations Management, and Competition Regulations. All indicators are constructed with well and clear objectives.

**Keywords:** Badminton Competition System; Youth; Develop

### Introduction

On April 27th, 2020, the Opinions on Deepening the Integration of Sports and Education to Promote the Healthy Development of Teenagers (hereafter referred to as the "Opinions"), adopted at the 13th meeting of the Central Committee for Comprehensive Deepening Reform chaired by General Secretary Xi Jinping, stated: "Student sports events in compulsory education, high school, and university stages are jointly organized by education and sports departments. The competition plans are drafted and registration qualifications are unified" (Xu Q, 2021). The Opinions also recommended an integrated system of school competitions, U-series competitions, and other youth sports events at all levels. This system creates a four-tiered youth sports event framework encompassing sub-schools (elementary schools, junior high schools, high schools, and universities) and trans-regional (counties, cities, provinces, and countries) levels, and organizes intra-school competitions, inter-school competitions on weekends, and trans-regional and national competitions during holidays. The Opinions require both the sports department and the Ministry of Education to redesign the youth



competition system, necessitating comprehensive management to ensure a closely connected competition system across all levels.

In June 2020, the general offices of the Central Committee of the CPC and the State Council issued the "Implementation Opinions on Comprehensively Strengthening and Improving School Physical Education in the New Era," redefining the concept of "church, diligent Practice, and regular competition" and setting the overall goal of "having fun, strengthening physique, improving personality and tempering will." The establishment of a scientific sports competition system and a competitive ecology encourages the majority of young people to actively participate in competitions, deepening their understanding of sportsmanship while promoting physical and mental health. The competition system is key to successful education implementation. Simultaneously, competition serves as an important channel for identifying and training outstanding youth sports talents (Zheng, J. & Liu, D., 2020).

Through a detailed interpretation of the "Opinions on Deepening the Integration of Sports and Education to Promote the Healthy Development of Teenagers" and "Implementation Opinions on Comprehensively Strengthening and Improving School Physical Education in the New Era," it's evident that youth sports competition is a core node for promoting the integration of sports and education. To encourage the healthy development of teenagers, a well-structured youth competition system is essential. The scientific and reasonable integration of youth competitions and the promotion of integrated development across various competitions are important strategies for fostering the advancement of sports and education integration (Zhong B, 2020).

Badminton, a net-separated, antagonistic sport involving both aerobic and anaerobic exercise, is both entertaining and safe. Its unique characteristics have attracted mass participation (Triantafyllidis S. & Darvin L., 2021). Guangdong Province, where badminton is widely played and competed, has gained significant practical knowledge and theoretical understanding of badminton competitions. In the education system of Guangdong Province, badminton is also vigorously promoted. In 2016, the first school badminton association led by the education system was established, and in 2021, the Guangdong Provincial School Badminton League was held, encompassing four levels: university, high school, junior high school, and primary school. At the same time, youth competitions in Guangdong Province started undergoing reforms in 2021, with group-oriented competitions not being limited to the competitive sports sector. The sports department and the education department have gradually begun to jointly hold badminton competitions. However, despite the upward development trend of juvenile badminton in Guangdong Province, there are still problems that need urgent resolution. For instance, barriers to joint competition between sports and education systems in terms of qualification, technical level certification, and registration have not been eliminated. The current youth badminton competitions in the sports departments face the issue of regional competition imbalance due to funding and policy constraints, which have resulted in inconsistent competition frequency. Competitions originally held in the education system tend to be "competitive," accessible only to a small number of students, and lacking in popularity. Furthermore, professional athletes did not participate in the competitions held by the education department, and the badminton competition level of the education department failed to fulfill its purpose of selecting outstanding reserve talents for competitive sports in China (Yao, Y., & Li, J., 2018). These problems hinder students from mastering badminton skills, promoting badminton, and cultivating exceptional reserve talents. Hence, it is urgent to address the issues within the current youth badminton competition system in Guangdong Province.

The research on badminton is mainly in the past 20 years, and the research content focuses on badminton skills and tactics and the status quo of badminton development. There is relatively little research content on badminton competition in China. The research on badminton competitions also focuses on the brand promotion of college badminton competitions and other industrial promotion aspects. For example, Zhao Yanan (2022) used the SWOT analysis method to investigate the development environment, population characteristics, development status, development mode, and consumption characteristics of badminton. Zhang L (2019) and others investigated the local situation of the badminton competition in terms of organizational structure and overall scale. However, there are relatively few studies on the development of a badminton youth competition system. The articles



on the youth competition system mainly focus on basketball, football, ice and snow, and other events. This situation also matches China's national conditions. In the past 10 years, Chinese policies and funds have inclined to the popularization of campus football and ice and snow sports. It is urgent to study the development of the youth badminton competition system in Guangdong Province, both in theory and in practice.

Teenagers' badminton competition is one of the best ways to stimulate interest in learning badminton, and competition is also the avenue to improve badminton skills proficiency. For the sustainable and healthy development of youth badminton in Guangdong Province, it is crucial to build a reasonable and well-structured youth badminton competition system.

## Objectives

The main objective of the study was to formulate a youth badminton competition system within Guangdong Province, China.

## Literature Review

The goal of this study is to construct a continually developing youth badminton competition system in Guangdong Province, China. The focus of this research lies in competition theory, youth sports development policy, and the development of the badminton competition system. The subsequent literature review and research will delve into the development of the youth badminton competition system in Guangdong Province, China.

### Sports competition theory

The components of sports competition

Tian Maijiu (2013) identified three essential components for any sports competition, whether it is a large-scale international event or a casual game among friends: the participants of the competition activities, the location and material conditions for the competition, and the organization and management of the competition activities. The absence of any one of these components would render an activity unable to qualify as a competition. Participants in a competition include organizers, staff, spectators, and competitors. Material conditions encompass the required venues, equipment, and facilities. The organization and management of competition activities involve competition rules, regulations, and arrangements. Among these components, participants are the most crucial, as a competition cannot occur without them. The more comprehensive and well-organized a competition is, the more successful it tends to be.

The value and benefits of sports competition

The Comprehensive Department of Training and Competition of the National Sports Commission (1990) highlighted that the social benefits and roles of sports competition are fundamental to its emergence and development. Liu Da. (2023) emphasized the social benefits of sports competition, which include promoting social stability and development, providing a standardized competitive paradigm, fostering a healthy competitive mindset, enriching cultural life, and disseminating sports culture. The value of sports competition can be seen through its role in sports development, the realization of sports benefits, and as a vital link in sports training.

Sports and competition systems

Michel-Kröhler, A., Kryš, S., & Berti, S. (2021) argued that the existence of competitive events, activities, and techniques used to achieve sports performance are all governed by competition systems. In China, the competition system was implemented during the planned economy era, which had both advantages and disadvantages. The competition system effectively enhanced China's competitive level and mobilized national, local, and social enthusiasm for competitive sports. However, it also led to a lack of market-driven development, low social benefits, and limited financing channels. Currently, the focus is on promoting the socialization, marketization, standardization, and industrialization of sports competition. The aim is to improve the quality and overall benefits of sports



competitions while establishing a competition system that aligns with competitive sports and local economic levels.

#### Organization and management of sports competitions

Scholars have explored various aspects of sports competition organization and management, such as specific organization methods and systems. A well-established organization and operation mechanism are necessary for the successful management of sports competitions. They also emphasized the importance of a fair competition system that encompasses both internal and external systems, with competition subjects at community, market, direct, and service levels (Wu, Y., Wang, Q., & Liu, Y., 2021).

**Summary** The research conducted by numerous scholars indicates that a successful sports program requires a healthy sports competition system supported by a comprehensive institutional framework. It also highlights the need for integrating education and sports, as this combination is crucial for the growth and development of sports competition.

#### Inclusivity and accessibility in sports competitions

Inclusivity and accessibility in sports competitions have gained increased attention from researchers and policymakers. The aim is to ensure that individuals from diverse backgrounds and abilities can participate in sports competitions, thereby promoting social inclusion, equal opportunities, and physical and mental well-being.

Chen Li (2021) argued that promoting inclusivity and accessibility in sports competitions requires the development of policies and infrastructure that cater to the specific needs of different groups, such as people with disabilities, women, and economically disadvantaged individuals. This includes the provision of accessible facilities, adaptive equipment, and specialized training programs, as well as the organization of inclusive Sports competitions that celebrate diversity and foster a sense of belonging.

#### Sports talent training

Howie, E.K., et al. (2020) mentioned that training an athlete requires comprehensive methods, covering many aspects of technical training, physical training, psychological training, and competition experience. Although China, Japan, and Thailand are all badminton powers in Asia, their training methods may be different. Here are some possible features:

The training system of badminton players in China is very mature and systematic, and there is a clear talent selection and training system. In China, the training of badminton players usually starts in primary school or even earlier, gradually passing through schools, local teams, and provincial teams, and eventually entering the national team. High training intensity, high degree of science, and the coaching team is professional. Japan: The cultivation of badminton players in Japan emphasizes the balance of skill and physical fitness, as well as the overall development of sportsmanship and individual players. Training usually starts from the school. In the badminton club or team of the school, the athletes will not only receive technical and physical training but also accept the accumulation of competition experience and the cultivation of psychological quality. Thailand: The cultivation of badminton players in Thailand may put more emphasis on individual talent and spirituality than China and Japan, and pay more attention to the psychological training of athletes. Many Thai badminton players are more flexible and individualized, and the training methods may rely more on the personal understanding and interpretation of the coaches and athletes.

#### The history of Chinese sports competition

##### The change and development of China's competition system

With the creation, development, and improvement of the competition, the brilliance of China's competitive sports is playing an important social and economic role, and becoming an integral part of China's spiritual civilization. Its historical evolution is not only restricted by the national political economy but also influenced by the reform of the international Olympic Games and the international



individual association events. Yuan Shoulong (2009) pointed out that competitive Sports competitions in China can be divided into four stages. The first stage of the organization of the event (1949-1959), the first stage is characterized by reference, transplantation, small and diverse, and amateurism. The report on the National Sports Plan of the National Sports Commission (1958) mentioned that the first National Games was successfully held in 1958. In the second stage of the competition organization and development stage (1960-1979), the organization of the competition in this stage is characterized by a clear main line. The main line of the event is clear, which means that the system of the National Games has been determined, and the number and scale of the events have increased. In this stage, three national Games were held. With the deepening of the organization of large-scale events, this stage laid the foundation for the formation of China's later event system. The third stage of the modern competition system (1980-1993) In 1980, the State Sports Commission made a systematic review and summary of China's competitive sports in the past 30 years.

This summary for the first time proposed the basic concept and direction of the establishment of China's competition system, which accelerated the formation process of China's competition system. The fourth stage of reform and improvement of the event system (1994-2004) After the development of the first three stages. The event system was established. With the development of competitive sports and the continuous rise of China's international sports status, especially the deepening of China's reform and opening-up policy, further reform of the event system is imperative (Zhong B, 2020). In 1993, the Opinions of the State Sports Commission on Deepening the Reform of Sports opened the prelude to the comprehensive reform of China's competition system. It can be said that this document is the watershed between the third and fourth stages of China's competition system. The modern concept of the event began in 1994.

#### The Evolution of China's competitive sports competition system

China's competition system has undergone two qualitative changes since 1958. The first qualitative change was in 1958 when the former State Sports Commission issued the Sports Competition System of the People's Republic of China (Draft), which divided Chinese events into the following categories: comprehensive games, individual championships, level competitions, competition and communication competitions, and other competitions such as friendly competitions and invitational competitions. The number of national competitions is stipulated: once every year, football, basketball, and volleyball, 3 times every year; spring, summer, and winter games; table tennis at least twice a year; gymnastics, weightlifting, and other events at least once a year; communication competitions in track, swimming, weightlifting, cycling, archery, and shooting (Yang, M., & Wu, Y., 2021).

#### Junior badminton competition

Most of the youth badminton competitions in China are higher education bureaus, sports bureaus, and other departments, or badminton associations at all levels, as well as well-known commercial badminton competitions. The events are in line with several changes in competitive sports. However, the participants of youth Sports competitions have the dual status of students and professional athletes. Before 2020, youth competitions can be divided into three categories: One is the badminton competition at the competitive level of the General Administration of Sport of China, once every four years. The second category is that the badminton competitions in primary and secondary schools and universities are responsible for the education authorities, sports associations of middle school students, and sports associations of colleges and universities. The third category is the individual championship organized by the individual association of the sports department (Michel-Kröhler, A., Krys, S., & Berti, S., 2021)

At present, the well-known national youth badminton competitions include the following: 1. National Student (Youth) Sports-badminton Competition jointly organized by the Ministry of Sports, Health and Arts and the General Administration of Sport of China; 2. U series badminton matches



organized by the General Administration of Sport; 3. National Youth Championships held by China Badminton Association; 4. College Students badminton Championships held by China University Sports Association; 5. National Middle School Badminton Championship sponsored by China Middle School Student Sports Association; 6. Chinese College Students Sunshine Sports Badminton competition held by China University Sports Association.

The youth badminton competition in Guangdong province is mainly in the following situations: (1) There are two kinds of events connected with the national sports department. The first one is the Guangdong Youth Badminton Championship hosted by the Guangdong Sports Bureau. Mainly to choose excellent reserve talents and professional competitive athletes. This competition is the most recognized in the youth badminton competition in Guangdong Province. With the corresponding name and the athlete grade certificate, it can obtain the qualification of high school and college students, which is also one of the bases for the evaluation of sports level. However, the registration qualification for the competition has certain restrictions. The second is the Guangdong U Series Badminton competition, which is a youth competition funded by the Guangdong Sports Bureau and sponsored by the Guangdong Badminton Association. The restrictions on registration will be lifted in 2020. Participants will no longer be required to register as professional athletes. The competition is popular with young people because they are the first to participate in the Guangdong Youth Badminton Championship. (2) The events related to the national education department mainly refer to the Guangdong University Students Badminton Championship and Guangdong Middle School Students Championship held by China University Students Sports Association and China Middle School Students Sports Association. The two competitions are hosted by the Department of Education in Guangdong Province and are executed by the Guangdong Provincial School Badminton Association. The competitions in the education system of Guangdong Province are all held according to the national education system competitions, and the national, provincial, and municipal competitions have all held college students' championships and middle school students' championships. However, there is no promotion system and no connection between the events and the events. All belong to different organizations in running the competition.

In 2020, the Notice on Issuing Opinions on Deepening the Integration of Sports and Education and Promoting the Healthy Development of Teenagers was jointly issued by the General Administration of Sport and the Ministry of Education. The document said, "Sports competitions for compulsory education, high school and college students are jointly organized by the education and sports departments to formulate event plans and unify the registration qualifications. Professional youth Sports competitions are organized by each association and cooperated by the student sports association of the Ministry of Education. Education, sports department integrated school games, U series of all levels of youth Sports competitions, establish learning section (elementary school, junior high school, high school, university), across the regional (county, city, provincial, national) level 4 youth sports system, use their spare time organization school games, weekend organization intercollegiate games, holiday organization cross-regional and national games. The National Youth Games and the National Student Games renamed the National Student (Youth) Games will be led by the Ministry of Education and cooperate with the General Administration of Sport (Howie, E.K., et al. 2020).

### **The youth sports competition system at home and abroad**

The development of the Youth Sports competition System in China

Wu, L., & Guo, X. (2002) think China's youth sports training and competition organization mode has many unreasonable factors, The government led the era of planned economy unreasonable factors more and more, socialization and industrialization road, should cultivate social interests and interests, with "horizontal contact" as the structure relationship to organize youth sports training and competition, and put forward the youth children training and competition association organization,



integration of social forces and other countermeasures' combined with the national system, analyzed the organization mode of youth sports training and competition in China: the organization mode of competitive education, the organization mode of combining sports and education and the joint organization mode of sports society. From the current situation, the shrinking of the reserve talent team has exposed the inadaptability of the above modes.

The development of a foreign youth Sports competition system

In 1987, the Taiwan Ministry of Education Sports imitated the American college basketball league (National Collegiate Athletic Association, NCAA) mode operated the Taiwan high school basketball league (High School Basketball League, HBL), to improve the system of basketball league campus sports and basketball culture atmosphere, makes the basketball in Taiwan has a broad mass base, strength also greatly improved. Luo, C., & Gong, B. (2019) proposed in the operation mechanism of the Taiwan High School Basketball League that the mature operation of the league requires the coordination and cooperation of the government, enterprises, schools, students, athletes, media, and other aspects. Mainly: promote the popularization of the event by "administrative power" (government macro planning), expand the packaging and marketing with "commercial power" to expand the commercial value of the event; obtain the support of school education and family education by the "home school power", enhance the sense of honor and achievement of students and athletes to gain more recognition; publicize the event with "media power", expand the influence of the event; form a unique talent training system with "professional power", build a sustainable talent training chain, and employ professional coaches for guidance. Five aspects of the "strength" layer upon layer of cooperation, to present a wonderful, high-level high school basketball game.

Zhao Yanan (2022) pointed out that the organization of football matches in Japan is mainly divided into two lines. One is the intramural football system developed based on after-school associations, and the other is the off-campus football training system, where the off-campus football system serves the intramural football system. Two events with independent and interconnected competition systems.

According to the study of many scholars, Europe and the United States, Japan, and South Korea around the formation of the youth sports system and its social system, economic development, and cultural differences are closely related to the influence factors, although China's youth sports development with many differences and different, but the successful experience of the system is still worth us in the process of optimizing the system further study and reference. In the past, China's youth badminton competition has always been dominated by the administrative system. Most of the badminton competitions dominated by the education department were participated by traditional sports schools. Most of these competitions were regional, with little publicity and social influence. The event and the event are only a reference, there is no connection. The events are arranged according to the requirements of the local administrative authorities. Between the event and the event to form a benign operation of the event system. From the study of many scholars, we can see that the formation of a national youth competition system and its social system, economic development, and cultural differences are closely related to the influencing factors, although China's political environment, economic environment, and children, but the successful experience of the system is still worth us in the process of optimizing the system of learning and reference.

### Summary

The existing relevant research perspective is relatively single. The research on the development of the youth badminton competition system in China is still in its infancy, and the overall research on the integration of school sports and competitive sports and the combination of multidisciplinary theories in academia is still insufficient. Most of the research results are mainly examined from a single perspective, therefore, their research content and conclusions may lack systematization and comprehensiveness to a certain extent. At present, the research results mainly



focus on the study of sports-education integration policies, and the in-depth exploration of empirical studies is still insufficient.

Chinese scholars' research on youth sports competitions mainly focuses on basketball and soccer, and there is a relative lack of research on the badminton competition system. Therefore, we need to study the organizational structure and current situation of youth badminton competitions in Guangdong Province in-depth, explore the constraints that exist in the integration of sports and education sectors in youth badminton competitions, understand the differences between the youth badminton system in Guangdong Province and the Japanese youth badminton system, and learn from the experience of the Japanese badminton competition system to promote the healthy development of youth badminton in China.

### Conceptual Framework

The research title “Development of Youth Badminton Competition System in Guangdong Province China” was designed as follows

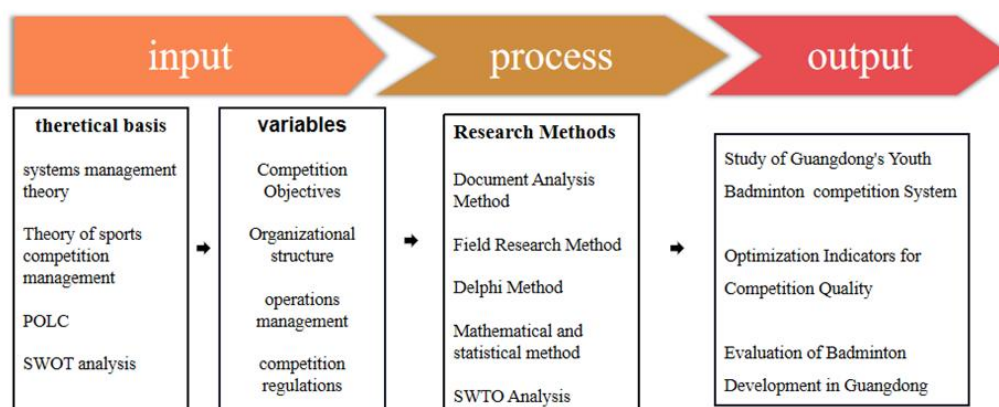


Figure 1 Conceptual Framework

### Methodology

#### Populations

The study will select one competition of the education system, one competition of the sports system, and one competition jointly organized by the education and sports systems, a total of three competitions, according to the different units hosting the competitions, as the specific object of investigation. The size of the survey competitions is 30 or more teams. Five administrators, 10 referees, 20 coaches, and 50 athletes were taken from each research competition for the survey. Since there will be some duplication of competition administrators in the education sector and sports sector jointly organized competitions, a total of 12 competition administrators, 30 referees, 60 coaches, and 150 athletes are expected to be surveyed.

#### Sampling method

The sampling method employed in this study is Multistage sampling, the subjects under study include athletes, coaches, event management personnel, and government officials overseeing the event. The sampling method differs based on the surveyed subject.

1) Involves random sampling, with the sampling unit being the group and gender. From the results of the first stage, 5 male and 5 female groups are randomly selected.

2) Again, there is random sampling, where, based on the results from the second stage, 5 students are randomly selected from each group.



For the survey of coaches, whole cluster random sampling was mainly used. Which is divided into three groups: education system competitions, sports system competitions, and joint competitions of education and sports systems. Each group selected 1 competition for research. A total of 60 coaches were sampled.

#### **Research instrument**

1) The questionnaire data were collected during the fieldwork using the software "Questionnaire Star".

2) The PNI value of the questionnaire data and the CV value of the index data were calculated and analyzed by using Excel software.

3) SPSS software was used to perform descriptive statistical analysis of the data, analyzing the MDN, mean, and CV values.

4) WPS software was used to process the icons and organize the organizational chart.

#### **The research method is outlined as follows:**

This research was divided into several steps as follows:

Step 1: A literature review using the literature data method:

Reviewed the relevant research literature on the Integration of sports and education, Development of youth badminton events, Training and competition of Chinese and foreign youth.

Step 2: Collecting data and formulating conceptual frameworks:

Collected the data on youth badminton events in Guangdong Province, China over the years and interviews with the coaches, athletes, referees, and managers of youth badminton events in Guangdong Province. Formulated the conceptual framework for the development of the youth badminton competition system in Guangdong Province, China.

Step 3: Constructing the research instrument:

Formulated the questionnaire and interview outline of the current situation of youth badminton events in Guangdong Province, and conducted the IOC test of the questionnaire. Three investigators try to find the complete procedure and quality of the survey.

Step 4: Collecting data:

Used cluster random sampling method. For 5 managers, 10 coaches, 10 referees, and 30 athletes and then determined the system structure of youth badminton events in Guangdong Province.

Step 5: Analyzing and interpreting data:

The SWOT analysis method is summarized to analyze the Strengths, Weaknesses, Opportunities, and Threats of Guangdong's youth badminton system. Then put forward the optimization strategy for the development of the youth badminton competition system in Guangdong Province.

Step 6: Concluding and writing the final report

## **Results**

### **1. The current situation of the Youth Badminton Competition System in Guangdong Province, China**

In recent years, Guangdong Province has undertaken comprehensive reforms in sports and education, proactively addressing the mandates of relevant national organizations to achieve a high level of integration between sports and education. The 2023 Guangdong Provincial Youth Badminton Championships, orchestrated by the Guangdong Sports Bureau and executed by the Guangdong Badminton Association, encompass seven events. These events comprise boys' and girls' teams, boys' singles, girls' singles, boys' doubles, girls' doubles, and mixed doubles, featuring participation from 31 individual schools and various units across the province. Meanwhile, the Guangdong Province Primary and Middle School Student Badminton Championship, a significant event organized by the Guangdong Provincial Department of Education and executed by the Guangdong School Badminton



Association, has drawn participation from 96 teams representing elementary schools, middle schools, and vocational schools across the province, with a total of 421 athletes. This competition is divided into four categories.

Conversely, the Guangdong Provincial School Badminton League, a prominent competition co-directed by the Guangdong Provincial Department of Education and the Guangdong Provincial Sports Bureau, and jointly organized by the Guangdong Provincial School Badminton Association and the Guangdong Provincial Badminton Association, is primarily open to school students throughout the province.

## 2. Guangdong Youth Badminton Competition System Construction Elements selection and analysis

To gain a deeper understanding and facilitate the construction of the youth badminton competition system in Guangdong Province, this study employed a comprehensive approach involving a literature review, questionnaire surveys, and the Delphi method. This approach aimed to elucidate the factors influencing the construction of the competition system. To systematically identify and evaluate these factors, the study further employed the POLC (Planning, Organizing, Leading, and Controlling) theory, conducting an in-depth analysis of the constituent elements of the Guangdong youth badminton competition system. Within this study, experts were invited to assess a series of primary and secondary indicators within the Guangdong youth badminton event system. The event system was divided into 4 primary indicators, 15 secondary indicators, and 38 tertiary indicators, each of which could potentially impact the future direction of youth badminton in Guangdong Province.

Table 1 Guangdong Province youth badminton competition system by Delphi method

Level 1 indicator	Level 2 indicator	Level 3 indicator
A-Competition Objectives (4.95)	A1 Long-term objectives (4.95)	A11 Objectives for the development of youth badminton (4.84)
		A12 The goal of raising the level of the competition (4.89)
		A13 Objectives for enhancing social impact (4.95)
B-Organizational structure (4.95)	A2 milestone (4.84)	A21 Awareness and acceptance (4.89)
		A22 Participation and activism (4.84)
		A23 clout (4.84)
	B1 Race Organization Affiliation (4.89)	B11 hierarchy (4.89)
		B12 network (5.00)
	B2 Administrative functions of the race organization (4.79)	B21 Role Definition (4.79)
		B22 Division of responsibilities (4.79)
	B3 Decision-making mechanism of the organizing body of the competition (4.74)	B31 Coordination mechanisms (4.89)
		B32 Decision-making mechanisms (4.84)
		B33 Conflict mechanisms (4.89)
		B34 Feedback mechanisms (4.89)
	C1 Facilities and equipment management (4.79)	C11 Facilities and equipment database (4.95)
		C12 Quality standards for facilities and equipment (4.95)
		C13 Facilities and equipment sharing and coordination mechanisms (4.84)
	C2 Human resources management (4.79)	C21 Talent Resource Database (4.84)
		C22 Staffing standards (4.84)



Level 1 indicator	Level 2 indicator	Level 3 indicator
C-operations management (4.89)		C23 Mechanisms for staff scheduling and management (4.79)
	C3 financial management (4.79)	C31 Source of funds (4.74) C32 Funds management system (4.74)
	C4 Technical Support (4.58)	C41 Timing and scoring system (4.74) C42 Data collection and analysis (4.68) C43 Race Management Software (4.84)
	C5 Running of the competition (4.79)	C51 Race day-to-day operation management (4.74) C52 competition logistics management (4.84) C53 Race Staff Management (4.79)
	C6 Marketing and public relations management (4.79)	C61 Marketing (4.84) C62 Branding (4.94)
	D1-Game setup (4.79)	D11 Competition Type (4.95) D12 Competition Format (4.74)
D-competition regulations (4.89)	D2-entry requirements (4.84)	D21 entry requirements (4.89) D22 Competition Schedule (4.84)
	D3-Rules and systems (4.84)	D31 Competition Rules (4.84) D32 Referee Rules (4.79) D33 System of incentives and penalties (4.89)
	D4-Problem solving (4.68)	D41 System of incentives and penalties (4.84)

The primary objectives of the youth badminton competition system in Guangdong Province received a high mean score of 4.95 during the second round of data collection. This question was regarded as of utmost significance, securing the highest score in this study. However, a marginal increase in the average score from 4.74 in the first round to 4.95 in the second round was observed. Experts emphasize that well-defined and specific goals are essential for the effective establishment of the competition system.

The secondary indicators of the youth competition system in Guangdong Province were formulated by combining the POLC theory and underwent two rounds of expert questionnaires. From the Table, it is evident that the setting of clear long-term objectives garnered increased agreement during the second round. The mean score for this question rose from 4.84 in the first round to 4.95 in the second round. This indicates that experts concur on the necessity of a well-defined Long-term plan within the junior badminton competition system.

Regarding competition objectives in terms of phase plan, the mean scores were 4.79 in the first round and 4.84 in the second round. In terms of the organizational structure, specifically competition organizational affiliation, the mean score for the question regarding an ideal organizational affiliation within the Guangdong youth badminton competition system increased from 4.79 in the first round to 4.89 in the second round. Concerning the administrative functions of event organizations within the organizational structure, the mean score for this question was 4.74 in the first round and 4.79 in the second round. Organizational Structure - Decision-Making Mechanisms of the Event Organization: When evaluating the question, "What components should be included in an effective coordination and decision-making mechanism for the event organization?" the scores for this particular indicator were 4.68 and 4.74. For the third indicator after using the expert in the Delphi method, the average of every indicator changed in the second round.



### 3. SWOT comprehensive strategy analysis of the development of the Youth Badminton Competition System in Guangdong Province, China

In the context of global sports competition, badminton has become a popular sport in Asia and around the world. As the economic and cultural center of China, Guangdong Province has both opportunities and challenges for the development of youth badminton. This study employs a SWOT analysis to conduct an in-depth analysis of the Youth Badminton Competition System in Guangdong Province, China, aiming to provide strategic recommendations for policymaker's schools, and sports departments.

The development of the Youth Badminton Competition System in Guangdong Province, China has the following advantages, disadvantages, opportunities, and threats.

**Strengths:** 1) Policy support: In the context of the national integration of sports and education, Guangdong Province is likely to receive more central and local policy support to promote the development of the youth badminton competition system. 2) Economic strength: Guangdong Province possesses strong economic strength, which provides sufficient resources and funds for badminton competitions. 3) Badminton foundation: Guangdong Province has a deep tradition and cultural accumulation of badminton events as well as an athlete's reserve. 4. Experienced: Guangdong Province has successfully held many domestic and international badminton events and accumulated rich experience in organizing them.

**Weaknesses:** Initial construction of the competition system: If the Youth Badminton Competition System in Guangdong Province, China has just begun to be constructed, there are imperfections and instability in the initial stage. Institutional Coordination: There are overlapping organizational structures, requiring close cooperation between multiple departments such as sports and education, and there are coordination difficulties. Talent Loss: High-level badminton coaches and managers face poaching from other regions or countries. Institutional integration: It is a challenge to organically combine national, provincial, and international competition systems.

**Opportunities:** Integration of sports and education: The strong national support for the integration of sports and education provides great opportunities for Guangdong Province. Popularity of badminton: The popularity of badminton in Guangdong and the whole country provides conditions for the event to attract spectators and participants. International cooperation: Guangdong Province has the opportunity to cooperate with international badminton organizations to increase the international influence of the competition international cooperation. Market Expansion: The economic and cultural influence of Guangdong Province provides favorable conditions for badminton events to attract spectators and sponsors.

**Threats:** Competition from other events: There may be competition from other sports events with badminton events in Guangdong Province for resources and attention. Uncertainty: Policy uncertainty may affect the long-term development of the event.

<b>Strength</b> 1. Policy Support 2. Economic Strength 3. Badminton foundation 4. Experienced	<b>Weaknesses</b> 1. Initial establishment of competition system 2. Institutional coordination, Intersectoral cooperation 3. Talent Drain 4. Institutional integration
<b>Opportunities</b> 1. Integration of Sports and Education 2. Popularization of badminton	<b>Threats</b> 1. Other Race Competition 2. Uncertainty



3. International Cooperation Market Expansion	
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Figure 2 Guangdong Province youth badminton competition system  
development SWOT analysis

## Discussion

This section summarizes the main discussions of the study based on the analysis of the results of the study.

The research aligns with Zhong Bingshu's (2020) proposition. Currently, China's youth sports competition system operates under two distinct frameworks, one sponsored by the sports department and the other by the education department. The youth reform strategy emphasizes two main points: The primary objective is to encourage students to continuously strive for excellence and self-improvement in competitions, fulfilling the essential mission of moral education and personal development. It advocates for the creation of a comprehensive national youth (student) sports event system. This system would span elementary, junior high, high school, and university levels. It aims to seamlessly integrate the resources of both the sports and education departments, ensuring it aligns with the developmental laws of both sectors. Moreover, it is designed to be inclusive, allowing all students to participate. Additionally, this system is intended to connect organically with the professional competition framework.

The concept of building an integrated event system that spans both the sports and education sectors is echoed in the findings of this study. The research emphasizes the significance of crafting an event system tailored to students' needs throughout their educational progression, from elementary school to university.

In a related study, Wang Gongbiao (2023) analyzed the development strategies of competitive ice and snow sports in the United States. He highlighted the U.S.'s emphasis on decentralization and collaboration within the governance system. The U.S. approach focuses on a multifaceted integration of talent identification and training. This strategy aims to establish a well-defined event system, anchored by the guiding principles of the Winter Olympics. Wang's perspective underscores the necessity of intertwining the event system with talent development, placing a premium on the interplay between different organizational systems. This viewpoint aligns seamlessly with the conclusions of our research. Our study recommends a meticulous delineation of relationships within the system. Furthermore, we advocate for the establishment of a dedicated committee for the youth badminton Competition System in Guangdong Province. This committee, operating under the joint oversight of the sports and education departments, aims to define and realize the objectives of the Competition System.

The findings of this research align with those of Zhao Yanan (2022). Japan has implemented a dual approach to nurturing young soccer talents, leading to the establishment of two distinct Competition Systems. This model serves as a valuable reference for our country. In Japan, the external school soccer Competition System complements and supports the internal school soccer Competition System, ensuring that the competition schedules respect students' academic commitments. This perspective is consistent with our study on Japan's badminton Competition System. The organizational structure of Japan's badminton Competitions aligns closely with the developmental needs of the youth, with schools as the primary focus and communities playing a supportive role. By leveraging social clubs, Japan effectively nurtures competitive talents. This approach not only fosters the physical well-being of the youth but also elevates the competitive standards of youth badminton.

In a study conducted by Wang Yunsheng (2015), there was a strong emphasis on the continuous improvement and refinement of China's youth sports competition system. He stressed the



urgency of fortifying the regulatory mechanisms governing youth sports events. Sports authorities across all tiers need to adopt an open and transparent information system, ensuring that young athletes participate in a clear and open competitive setting. Meticulous oversight is paramount at all stages: pre-event, during the event, and post-event. Any deviations from established event protocols should be addressed with fitting disciplinary actions, ensuring an equitable and impartial competitive environment. This viewpoint aligns seamlessly with the core tenets of this thesis. A consistent theme is the importance of crafting unambiguous guidelines and seamlessly integrating them into the management of the event system. For such a system to thrive and endure, the presence of robust and articulated rules and regulations is indispensable.

Lei Zhaobing's (2022) research posits that the campus track and field event system in Yunnan Province is structured around several key components: competition objectives, organizational structure, competition resources, regulations, and the overarching event system. The competition objective stands as the linchpin of the event system, with all events orchestrated around this central goal. Competition resources, both as a material foundation and a developmental cornerstone, play a pivotal role in the execution of events. Regulations act as the bedrock, ensuring the seamless execution and maintaining the quality of events. The organizational structure serves as the conduit, seamlessly integrating all primary elements, while the event system provides a tangible blueprint for the event's execution. For a competition system to be holistic, there needs to be a harmonious interplay and coordination among all these facets. The emphasis is on crafting cogent regulations and judiciously allocating competition resources, all centered around the event's objectives. Only by adhering to a well-defined activity plan can an event system manifest with clarity and purpose.

Firstly, the current landscape reveals two distinct sports event systems: one rooted in the sports sector and the other in the education sector. This bifurcation potentially results in resource redundancy and fragmented management. To holistically cater to the growth and aspirations of the youth, there's an imperative need to synergize the resources and administrative prowess of both sectors, paving the way for a unified national youth event system.

Secondly, the global stage offers a repository of successful models worth emulating. The U.S., for instance, champions a model that accentuates decentralization and fosters synergy across governance structures in competitive sports. Japan, on the other hand, has adeptly amalgamated in-school and extracurricular resources, sculpting a Competition System that harmoniously balances academic pursuits with the nurturing of competitive talents. These international paradigms illuminate the path for enhancing the youth badminton Competition System in Guangdong Province. The essence lies in intertwining Competition infrastructure with talent cultivation, thereby forging a comprehensive talent development continuum.

Furthermore, the integrity and governance of the Competition System warrant meticulous attention. The bedrock of any Competition lies in its commitment to fairness and impartiality. Thus, fortifying the regulatory apparatus of the Competition becomes paramount to ensure an equitable competitive milieu for all participants. Concurrently, refining the system's goal orientation and management mechanisms is crucial for its robust and sustainable progression.

Lastly, the foundational pillars of any Competition System - its objectives, organizational blueprint, resource allocation, and regulatory framework - are pivotal determinants of its success. A concerted effort to accentuate and refine these elements is indispensable for the enduring vitality and relevance of the event system.



## Recommendation

### **1. First and foremost, a need for the youth badminton competition system in Guangdong to be constantly adapted and evolved.**

In light of the changes to the Guangdong youth badminton competition system, it has become particularly critical to regularly assess the current status of the competition system. This assessment ensures that the system's indicators align with its most recent operations and outcomes. Given the varying rates of development, resource allocation, and technological advancements in each participating city, there's an imperative need for a competition management system that's both adaptable and capable of offering real-time feedback. As various cities and regions in Guangdong Province continue to explore and refine the youth badminton competition system, it becomes essential to foster exchanges and dialogues with other provinces. This will help in understanding evolving national policies, economic shifts, and other external developments. Therefore, it's advisable to establish a cross-disciplinary committee of experts. This committee would be responsible for guiding, evaluating, and executing necessary adjustments, ensuring the competition system remains relevant and effective.

### **2. There is an urgency to improve the competition system.**

Considering the socio-economic background of the cities in Guangdong Province and the existing research basis, there is an urgent need to further improve the system of youth badminton competition. This will help the cities to formulate a clearer program for youth badminton events and promote the popularization of badminton culture, to achieve a better integration of sports and education. As one of China's economic powerhouses, the cities of Guangdong Province are unique in terms of their economic, cultural, and social progress, which requires a competition system that is universally applicable but also able to meet the specific needs of each location. In addition, given the future development of the event, we should also anticipate and respond to new changes and challenges that may arise.

### **3. The indicator system and development strategy for this study.**

This study has developed a corresponding indicator system and strategy for the characteristics and needs of youth badminton competition in various cities in Guangdong Province in the context of the policy of "integration of sports and education". The results are highly compatible with Guangdong's development strategies and provide important references for other regions and cities. In the future, more research and exploration should focus on the practical application and promotion of this system and strategy. The successful experience and practice of Guangdong Province in this regard will undoubtedly provide valuable experience and inspiration for other regions in the country and even other places in the international arena.

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