

Investigation and Countermeasure Research on the Current Situation of Children's Swimming Training in Xi'an High-tech Zone during Summer Vacation

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ABSTRACT

Conduct a survey on the current situation of the summer children's swimming training industry in Xi'an High tech Zone through methods such as literature review, on-site investigation, and questionnaire survey, in order to understand the basic situation, business models, and water quality safety of venues related to the summer children's swimming training industry in Xi'an High tech Zone; The current status of coaches' gender and age, professional titles and educational qualifications, and sources; The current situation of teaching content and assessment related to swimming teaching. Based on the current situation, we understand the problems in the summer swimming training for children in Xi'an High tech Zone, and propose relevant suggestions based on the existing problems, providing reference for the sustainable development of the summer swimming training industry for children in Xi'an.

KEYWORDS

Children; Swimming; Summer Training; Current Situation Investigation.

1. INTRODUCTION

Swimming, as a sport suitable for all ages, is widely loved by the public. With the improvement of people's living standards, the awakening of fitness awareness, and the guidance of national policies, more and more people are willing to spend time and money on swimming, which has led to the rapid development of swimming fitness venues and training bases like mushrooms after rain [1]. It is well known that swimming can not only enhance one's cardiorespiratory endurance [2], but also help develop muscle strength, endurance and flexibility, and effectively influence changes in body composition [3].

This study takes the summer children's swimming training institutions in the High-tech Zone of Xi'an City as the research object. Here, children refer to those aged 6 to 15, and summer refers to the summer vacation of children, from the beginning of July to the end of August in 2024. Through on-site investigation, there are a total of 22 swimming venues in the High-tech Zone of Xi'an City, among which 19 offer summer children's swimming training services. Among them, there are 7 chain swimming training institutions. We randomly selected 14 children's swimming training institutions as the survey subjects and randomly selected 14 managers, 42 coaches, and 195 consumers for the survey.

2. ANALYSIS OF THE CURRENT SITUATION OF SUMMER CHILDREN'S SWIMMING TRAINING INSTITUTIONS IN XI'AN HIGH - TECH ZONE

2.1. Basic Situation of Summer Children's Swimming Training Venues in Xi'an High - tech Zone

Table 1. Basic Situation of Summer Children's Swimming Training Venues in Xi'an High - tech Zone

Swimming Venue	Pool Size	Number of Lifeguards
Jindou Swimming Pool	Half - standard	2
Four - Season Constant -Temperature Swimming Pool	Half - standard	3
Xinyidong Swimming Pool	Irregular	1
Liking Fit Swimming Pool	Irregular	1
Shaanxi Guesthouse Swimming Pool	Standard	6
Yimei Swimming Training	Irregular	1
Aifeite Swimming and Fitness	Half - standard	3
VK Fitness	Irregular	1
Sibote Swimming Club	Half - standard	2
Little Shark Swimming Training	Half - standard	2
Aoyou International Swimming Training	Standard	4
Zero - Distance Fitness	Half - standard	2
Xingguang Swimming Training Base	Half - standard	1
Yongwangzhiqian Swimming Club	Half - standard	2
Yuejian Swimming and Fitness Club	Half - standard	1

For swimming venues, the pool is the most basic facility. Pool sizes can be divided into standard pools (50m x 25m), half - standard pools (25m x 25m or 21m), and irregular pools. Summer is not only a peak period for children's swimming training but also for residents' swimming. Therefore, the

size of the venue is very important. For children's swimming, safety is of utmost importance in addition to facilities. Thus, the allocation of lifeguards is necessary. By investigating the basic situation of the pools (Table 1, Figure 1), it is found that most of the pools in the venues are half - standard, with 9, accounting for 60%. However, there are still some irregular pools, accounting for 26.67%, and standard pools only account for 13.33%. Due to the large number of people swimming in summer, the venue is restricted. At the same time, when investigating the allocation of lifeguards in each venue (Table 1), it is found that according to the standard that a standard pool should be equipped with at least 6 lifeguards and a half - standard pool with at least 3 lifeguards, the number of lifeguards equipped in most swimming venues in Xi'an High - tech Zone does not meet the standard, indicating insufficient awareness of safety issues.

	Standard	Half-standard	Irregular
Number	2	9	4
Proportion	0.133333	0.600000	0.266667

Figure 1. Pool Standards of Summer Children's Swimming Training Institutions in Xi'an High - tech Zone

2.2. Business Models of Summer Children's Swimming Training Institutions in Xi'an High - tech Zone

Through on - site visits and investigations, it is found that there are 3 business models for swimming training institutions in Xi'an High - tech Zone: individual operation, chain operation, and other business models, as shown in Figure 2. Individual operation means that all matters of the venue, including operation and systems, are directly managed by the manager. In the initial stage of market formation, it has obvious advantages. Chain operation refers to an enterprise managing multiple swimming venues through unified systems and models. This model is currently common, with relatively mature management experience and unified system arrangements. The swimming training institutions in Xi'an High - tech Zone are mainly chain - operated, accounting for 46.67%.

	Individual Operation	Chain Operation	Other Business Models
Number	6	7	2
Proportion	0.400000	0.466667	0.133333

Figure 2. Business Models of Summer Children's Swimming Training Institutions in Xi'an High - tech Zone

2.3. Water Quality and Hygiene Issues of Summer Children's Swimming Training Institutions in Xi'an High - tech Zone

Since swimming requires most of the body to be in contact with water, water quality and hygiene issues are important factors for most consumers when choosing to consume. Through a questionnaire survey of 195 consumers, it is found that 83.59% of people pay great attention to water quality and

hygiene issues, indicating the importance of pool water quality and hygiene. At the same time, from the consumers' evaluation of the pool water quality and hygiene, it is found that most consumers think that the water quality and hygiene of the pool are average, accounting for 85%, while only 8% of consumers give a high evaluation. This shows that the water quality and hygiene issues of children's swimming training institutions in Xi'an High - tech Zone should attract the attention of managers, and a more comfortable and safe environment should be provided for consumers.

	Pay Attention	Great	Pay Attention	General	Pay Attention	No
Number of People	163		32			0
Proportion	0.835897		0.164103			0.000000

Figure 3. Consumers' Attention to Water Quality and Hygiene of Summer Children's Swimming Training Institutions in Xi'an High - tech Zone

Level	Percentage
High	8%
Moderate	85%
Low	7%

Figure 4. Statistical Chart of Consumers' Evaluation of Water Quality and Hygiene of Summer Children's Swimming Training Institutions in Xi'an High - tech Zone

3. ANALYSIS OF THE CURRENT SITUATION OF COACHES IN SUMMER CHILDREN'S SWIMMING TRAINING IN XI'AN HIGH - TECH ZONE

3.1. Age Distribution of Coaches in Summer Children's Swimming Training in Xi'an High - tech Zone

Table 2. Age Distribution of Coaches in Summer Children's Swimming Training in Xi'an High - tech Zone

Gender	Gender	Age	Age	Age	Age	Age	
	Male	Female	Under 20	21-25	26 - 30	31 -40	Over 40
Number of People	27	15	0	18	17	4	3
Percentage (%)	64.29	35.71	0	42.86	40.48	9.52	7.14

As shown in Table 2, male coaches are in the majority in the summer children's swimming training in Xi'an High - tech Zone. Among the 42 coaches surveyed, 27 are male, accounting for 64.29%. In terms of the age distribution of coaches, young people are in the majority. The number of people in the 21 - 25 - year - old age group is the largest, accounting for 42.86%, followed by the 26 - 30 - year - old age group, accounting for 40.48%. Due to the large number of students in summer, the original coaches in the venue are not enough, and some college students majoring in physical education are hired as part - time coaches. Therefore, the number of people in the 21 - 25 - year - old age group is relatively large.

3.2. Current Situation of Coaches' Professional Titles and Educational Qualifications in Summer Children's Swimming Training in Xi'an High - tech Zone

Table 3. Distribution of Coaches' Professional Titles in Summer Children's Swimming Training in Xi'an High - tech Zone

Professional Title of Social Instructor	Number of People	Proportion
Level 2	1	2.38%
Level 3	2	4.76%
Level 4	5	11.90%
Level 5	12	28.57%
None	22	52.38%

Through the investigation of the professional titles of social instructors and educational qualifications of coaches in the summer children's swimming training in Xi'an High - tech Zone, it is found that among the 42 coaches surveyed, only 1 person has the professional title of Level 2 social instructor, accounting for 2.38%. Most coaches have the professional title of Level 5 social instructor, accounting for 28.57%, and more than half of them have no professional titles. This indicates that the standard for coach access in the summer children's swimming training in Xi'an High - tech Zone is relatively low, and it also reflects that the summer children's swimming training market is large and there is a high demand for coaches.

3.3. Sources of Coaches in Summer Children's Swimming Training in Xi'an High - tech Zone

Table 4. Sources of Coaches in Summer Children's Swimming Training in Xi'an High - tech Zone

Source of Coaches	Number of People	Proportion
Teach directly after retiring from athletes	4	9.52%
Graduates of physical education	20	47.62%
Teach after graduating from physical education colleges after retiring from athletes	7	16.67%
Others	11	26.19%

Coaches engaged in children's swimming training not only need excellent swimming skills but also relevant theoretical knowledge. Through the investigation of the sources of 42 coaches in the summer children's swimming training in Xi'an High - tech Zone, it is found that most coaches are physical education graduates or retired athletes, which is relatively consistent in terms of majors. However, more than a quarter of the coaches are from other industries. This may be because managers hire people from other industries for swimming training to reduce costs and maximize profits.

4. CURRENT SITUATION OF TEACHING IN SUMMER CHILDREN'S SWIMMING TRAINING IN XI'AN HIGH - TECH ZONE

4.1. Teaching Organization Forms and Methods in Summer Children's Swimming Training in Xi'an High - tech Zone

The teaching organization form refers to the structure in which teachers and students cooperate to complete specific teaching tasks during the teaching process. In our investigation, it is found that the teaching organization forms of summer children's swimming training in Xi'an High - tech Zone are mainly individual teaching and class - based teaching. Individual teaching refers to one - on - one teaching, that is, one coach teaches one student. Class - based teaching refers to large - and small - class teaching, usually with 1 - 2 coaches teaching 5 - 15 students.

At the same time, it is found that the teaching methods of summer children's swimming training in Xi'an High - tech Zone mainly include the holistic teaching method and the decomposed teaching method. The holistic teaching method means teaching students the complete movement from the beginning to the end, which allows students to intuitively understand what they are learning. The decomposed teaching method means decomposing an action into several parts and teaching them separately, which is convenient for students to practice different actions to achieve a better teaching effect. Coaches in summer children's swimming training in Xi'an High - tech Zone usually combine these two methods to achieve a fast and efficient teaching effect. For example, when students first start learning swimming, coaches will explain the movements in a holistic way. After that, they will let the children enter the water to adapt and overcome their fear. Then, they will use the decomposed teaching method to explain the movements. For example, breaststroke is divided into four actions: "pull, turn, kick, and clamp", and children will practice these actions separately and then combine them to learn swimming quickly.

4.2. Teaching Content of Summer Children's Swimming Training in Xi'an High - tech Zone

Through on - site investigation, it is found that the course forms of summer children's swimming training in Xi'an High - tech Zone include private swimming courses, large - class swimming courses, swimming improvement courses, and boutique swimming courses (small - class courses). Private courses mainly refer to one - on - one tutoring between coaches and students. There are 10 classes in total, and each class lasts 1 hour. The advantage is that students can learn more solidly through one - on - one tutoring. Large - class swimming courses and boutique swimming courses are the main forms of summer children's swimming training because summer is the peak period for children to learn swimming. The difference lies in the number of students in the class. The large - class usually has about 10 - 20 students, and the boutique class has less than 5 students. The total number of class hours is also 10. One - period training only teaches one swimming stroke. Breaststroke is the first choice for most children because it is easy to master. By teaching the standard breaststroke stroke, students can move forward in the water. The swimming improvement course is for students who have already learned at least one swimming stroke and can swim in the water. They can learn other strokes to improve their skills.

4.3. Teaching Assessment of Summer Children's Swimming Training in Xi'an High - tech Zone

Table 5. Statistical Table of Parents' Satisfaction with Summer Children's Swimming Training in Xi'an High - tech Zone

Satisfaction	Number of People	Proportion
Yes	189	96.92%
No	6	3.08%

Teaching assessment is an essential part of children's swimming training. The evaluation criteria for students' learning achievements are as follows: One stroke + one breath + one kick is a complete action. If a student can swim 25 meters with a complete action, it is excellent; if a student can swim 25 meters with one stroke + one breath + two kicks, it is good; if a student can master each action and swim 25 meters, but the rhythm of the combined actions is unreasonable, it is qualified; if a student has not mastered the actions and cannot swim 25 meters completely, it is unqualified. After teaching assessment of 195 students, 65.64% of them can reach the excellent level, and the proportion of students above the qualified level is 98%. At the same time, when conducting a questionnaire survey among consumers to ask whether they are satisfied with the coaches' teaching, 96.92% of them think they are satisfied, indicating that the final teaching results of summer children's swimming training in Xi'an High - tech Zone are good and the satisfaction is high.

Grade	Percentage
Excellent	65.64%
Good	25.64%
Pass	6.67%
Fail	2.05%

Figure 5. Statistical Chart of Teaching Assessment Results of Summer Children's Swimming Training in Xi'an High - tech Zone

5. CONCLUSIONS

5.1. For Training Institutions

1) The swimming pools are relatively small, mostly half - standard and irregular pools. Due to the large number of students and swimmers in summer, it is easy to exceed the capacity of the venue, affecting the learning of swimming.

2) The number of lifeguards equipped seriously does not meet the standard. Safety is the most important thing in swimming, and lifeguards are a strong guarantee. However, most summer children's swimming training institutions in Xi'an High - tech Zone have insufficient lifeguards.

3) The evaluation of water quality and hygiene safety is average. When there are many people in the swimming pool, the water may become turbid, indicating that the venue's equipment is not advanced enough and cannot be updated in a timely manner.

5.2. For Coaches

1) Due to the large number of people in summer swimming training and the high demand for coaches, many college students are often hired as part - time coaches. This leads to some people working without certificates, which not only affects the teaching quality but also poses a potential safety hazard.

2) The swimming coach team is young, with relatively low professional titles. Most coaches are graduates of physical education majors, but there are also some people from other industries. This shows that the inclusion standards for coaches are relatively low, and pre-job training is not paid enough attention.

5.3. For Teaching

1) The number of students in training classes is over - crowded, and the ratio of coaches to students is not appropriate. Since each swimming training institution recruits a large number of students in summer, it is easy to over - crowd the classes. With too many students, coaches cannot take care of everyone, which is likely to affect the teaching quality.

2) The teaching assessment pays too much attention to the length of the swimming distance.

6. SUGGESTIONS

6.1. Expand the Supervision System of Swimming Training and Optimize the Management System

It is necessary to combine with the actual situation, strictly abide by national regulations, strengthen market supervision of swimming training, and standardize the management system. In particular, during the summer vacation, more inspections should be carried out. Unified opening standards for venues should be formulated, the requirements for training should be raised, and regular assessments of the venues should be conducted.

6.2. Strengthen the Construction of the Teaching Staff and Improve the Teaching Quality

The quality of teaching is the most important indicator for evaluating swimming training, and the teaching level of coaches is the key to teaching quality. Therefore, it is necessary to raise the entry standards for coaches, strengthen professional assessments of coaches, introduce coaches with high technical levels, and build a teaching staff with excellent skills and high - level capabilities.

6.3. Improve Water Quality and Hygiene Safety and Strengthen Venue Infrastructure

Seek government policy support, increase capital investment, and strengthen the maintenance and renewal of venue infrastructure. In the case of a large number of people during the summer vacation, increase the frequency of water replacement, disinfect the water quality strictly in accordance with national standards, and improve water quality and hygiene safety.

6.4. Improve Teaching Methods and Concepts and Enhance Teaching Quality

Some coaches place too much emphasis on technical teaching in order to achieve certain teaching goals quickly, while neglecting the teaching of theoretical knowledge and safety knowledge. It is necessary to break this teaching concept, conduct teaching with the aim of improving children's self - protection ability in the water, and carry out technical teaching on the premise of ensuring safety awareness. Additionally, the assessment criteria should be diversified and not limited to the length of the swimming distance.

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