



# Analysis and Countermeasure Research on the Reserve Talents of Snowboard Parallel Giant Slalom Referees

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**Abstract.** By the methods of literature, mathematical statistics, questionnaire and logic analysis, combined with the basic situation of the snowboard parallel giant slalom referees reserve talent at the present stage and the cultivation and situation in recent years, the present situation of the parallel giant slalom referees reserve talent in our country is combed and analyzed. Through investigation and analysis, it is found that the main problems at the present stage are as follows: 1. Imbalance of age distribution, weak personnel foundation, English level is less than 2. The overall level of judges needs to be improved, the personnel have insufficient experience in judging, and the skiing skills need to be improved. 3. The training form is single, and the training method needs to be strengthened. In view of the main problems, the countermeasures and suggestions are put forward: 1. Do a good job in top-level design, strengthen the construction of echelon teams, and innovate the training of referee reserve talents 2. Strengthen professional training to improve the overall level of coaches. 3. Strengthen policy guidance and financial support to comprehensively improve the ability of referees. 4. Create star referees, expand publicity channels and increase awareness. This paper provides theoretical reference for the high quality training of Chinese parallel giant slalom referees and the professional world level referees.

**Keywords:** Winter Olympics · A referee · Snowboard Parallel Giant Slalom

## 1 Introduction

Snowboarding originated in the United States in the 1960s, attracting countless young people with its unique fitness, entertainment and competition, and developing rapidly [1]. The snowboard parallel giant slalom was included in the official competition in the 2002 Winter Olympics. With the successful conclusion of the Beijing Winter Olympic Games, the development of the talent team of the referee of snowboard parallel giant slalom is related to whether the professional level of the referee of the snowboard parallel

giant slalom can reach the world-class level. Therefore, it is particularly important to develop a good reserve talent team of the referee of the snowboard parallel giant slalom, promote the level of the referee and improve the overall theoretical and practical ability.

The snowboard parallel giant slalom was launched in China in 2007. The development time of the project is relatively short, and the corresponding equipment of all parties is not mature, which hinders the development and progress of the project in China [2]. At present, there is not much research on the reserve talent of snowboard parallel giant slalom referees in China. Effective investigation, innovation of research methods, and selection of development direction for reference are all problems that need to be urgently solved. Especially, how to develop the referee team of snowboard parallel giant slalom after Beijing 2022 Winter Olympics are all problems that need to be urgently solved. Through the analysis and research of the current situation of the reserve talents of the referee in the snowboard parallel giant slalom, the characteristics of the current referee team are understood, and the ways of developing the snowboard parallel giant slalom referee team are further analyzed, so as to provide theoretical support and practical help for the development of the snowboard parallel giant slalom referee.

## **2 Methods and Materials**

### **2.1 Research Object**

This paper takes the current situation analysis and countermeasures of the reserve talents of the snowboard parallel giant slalom referees as the research object, investigates a total of 184 reserve referees of the parallel giant slalom, analyzes and studies them, finds out the problems, and gives countermeasures and suggestions according to the actual situation.

### **2.2 Research Methods**

#### **1) Literature research**

Through CNKI, Wanfang and other data platforms, consult the keywords, sports referees, winter referees, and other related works, a total of 60 papers, the existing snow sports referees for a comprehensive systematic analysis.

#### **2) Expert Interview**

According to the research needs, the outline of relevant discussion was designed, and the relevant personnel of the Snow and Ice Sports Management Center of the General Administration of Sport of China, as well as the key personnel of the national judges of snowboard parallel giant slalom, the heads of referees in each part, judges and other

experts were interviewed for in-depth communication, so as to study the effectiveness, innovation and reliability of this paper.

3) **Questionnaire survey**

a) *Questionnaire design.*

According to the research design, the present Situation analysis and countermeasure Research of the Reserve Talent of the snowboard parallel Giant Slalom Referee are designed.

b) *Distribution and recovery of questionnaires*

I distributed the software through the questionnaire star software to distribute and retrieve the questionnaires among the judges of the parallel giant slalom event of snowboard, and also distributed the questionnaires to 10 related experts in the form of electronic questionnaires. Questionnaire distribution results of this paper: experts issued 10 copies, recovered 10 copies, recovery rate of 100%, referees issued 210 copies, recovered 190 copies, effective 184 copies, effective 87% of the questionnaire, this questionnaire meets the requirements of sociological research, so the survey of this paper is real and effective.

c) *Reliability test*

According to the feedback results of experts, 60% of those who think the questionnaire is very appropriate and 40% of those who think it is appropriate (the statistical situation is shown in the following Table 1).

d) *Questionnaire validity*

Expert evaluation method and retest method were used to test the validity and reliability of the questionnaire. According to the comprehensive evaluation of the questionnaire by 10 experts in related fields, 100% of the respondents believed that the questionnaire was reasonable or very reasonable, which met the test requirements. At the same time, two weeks later, 20 people were randomly selected from the above survey objects and sent questionnaires again, and the statistical questionnaires were collected. Spss24 statistical software was used for statistical analysis of the questionnaire data. According to the two measurement results, it was calculated that  $R = 0.89$ ,  $P < 0.05$ , which met the requirements of sociology.

**Table 1.** Basic Information of Experts

Composition of Experts	professor	Associate Professor	combined
number	6	4	10
proportion	60%	40%	100%

### 3 Results and Discussion

#### 3.1 The Problems Existing in the Present Development of Snowboard Parallel Giant Slalom Referees in Chinese

##### 1) The staff base is weak, the age distribution is unbalanced, and the English level is insufficient

At present, there are only 15 provinces and cities in China, with 184 referees for snowboard parallel giant slalom, and they are concentrated in Beijing, Hebei, three Eastern provinces and other places, accounting for 25.5%, 44.0%, 16.8%, respectively. From the long-term development of snowboard parallel giant slalom events, the number of referees is weak, which is very unfavorable to the overall development of the project. Because people live in concentrated areas, it will increase many problems in the holding of competitions in other regions, which is also unfavorable to the overall development of the project (Table 2).

As can be seen from Table 3, in the talent team of referees at the present stage, 18.5% of the total number of referees are under the age of 25, 36.4% of the total number of referees are between 25 and 35, 24.5% of the total number of referees are between 35 and 45, and 20.7% of the total number of referees are above the age of 45. Further analysis shows that although the number of referees aged between 25 and 45 is the largest, However, the proportion of young personnel under the age of 25 and experienced personnel over 45 is small, which is not conducive to the balanced development of the

**Table 2.** Personnel Distribution in Provinces and Cities (n = 184)

Provinces	n	%
Hebei	81	44.0
guizhou	1	0.5
tianjin	3	1.6
beijing	47	25.5
jiangsu	2	1.1
heilongjiang	10	5.4
chongqing	2	1.1
jilin	10	5.4
shandong	5	2.7
shanxi	3	1.6
liaoning	11	6.0
hubei	2	1.1
shanghai	2	1.1
Inner mongolia	3	1.6
henan	2	1.1

**Table 3.** Age (n = 184).

Age	n	%
25 Below	34	18.5
25–35	67	36.4
35–45	45	24.5
45 Above	38	20.7

overall referee team. The age level is unbalanced, and the construction of talent team is not perfect.

The academic level reflects the theoretical knowledge of the whole referee team and the development potential of the referee profession [3]. It is very necessary for the development of the whole referee team to have good ideological and moral character, technical level and solid theoretical learning foundation. The educational background of a referee, which represents the degree of formal education received, is one of the indicators to measure a person’s knowledge level [4].

The overall education level of the referees is high, all coaches have high school education or above (Table 4), mainly bachelor degree or above, up to 97 people, accounting for 52.7%, master degree 39 people, accounting for 21.2%, doctor degree 4 people, accounting for 2.2%, but the proportion of high school and junior college is still significant, for the overall follow-up personnel further education, Learning and other influences, need to improve.

**Table 4.** Education Background (n = 184)

Education Background	n	%
High school	14	7.6
junior degree	30	16.3
Bachelor degree	97	52.7
Master degree	39	21.2
Doctor degree	4	2.2

**Table 5.** English Level Spoken English level (n = 184)

Level	n	%	Level	n	%
Level 6	20	10.9	Very fluent	9	4.9
Level 4	50	27.1	fluent	50	27.2
Level 4 below	114	62.0	not fluent	110	59.8
			non	15	8.1

As can be seen from Table 4, there are 114 referees with English level below level 4, accounting for 62% of the total number of referees; there are 50 referees with level 4, accounting for 27.1%; and there are only 20 referees with level 6, accounting for 10.9%. This indicates that the overall referees have weak English foundation and low English knowledge reserve at this stage. At the same time, 110 referees were not fluent in oral English, accounting for 59.8%, while 50 were relatively fluent and 9 were very fluent, accounting for 27.2% and 4.9%, respectively. Further analysis shows that in the current stage of the referee team, referees lacking in oral English account for a large part of the total number of referees. It has a great hindrance to the success of the whole team in the execution of the international level competition and needs to be fully strengthened.

## 2) **The level of the overall referee needs to be improved, The referee is inexperienced and the skiing skills need to be strengthened**

As can be seen from Table 5, there are 61 national level referees, accounting for 33.2%, 38 level 1 referees, accounting for 20.7%, 30 level 2 referees, accounting for 16.2%, 55 without grade, 29.9%. Further analysis shows that the number of referees in the snowboard parallel giant slalom event is about 150. And need to have the experience of referees, through the reserve talent referee grade statistics can be seen, the level of snowboard parallel giant slalom referee needs to be further improved, especially in dealing with large events due to the lack of personnel due to the level of referees insufficient, difficult to deal with the situation (Table 6)

As can be seen from the Table 7, 108 referees have less than 3 years of experience in refereeing, accounting for 58.7%; 55 referees have 5 to 10 years of experience, accounting for 29.9%; 11 referees have 11 to 15 years of experience, accounting for 6.0%; 10

**Table 6.** Class of referee (n = 184)

Class	n	%
National level	61	33.2
Level 1	38	20.7
Level 2	30	16.2
non	55	29.9

**Table 7.** Period of Validity (n = 184)

Years	n	%
3years below	108	58.7
5–10 years	55	29.9
11–15 years	11	6.0
15 years above	10	5.4

referees have more than 15 years of experience, accounting for 5.4%. Generally speaking, half of all referees have less than 3 years of experience. This leads to the lack of experience in the game, the lack of the ability to deal with emergencies on the field, the referee level can not be promoted and other problems.

Since the standard of each ski course is different in each ski resort, the skiing skills of reserve judges are calculated by taking Beijing Yuyang International Ski Resort as the standard. As can be seen from Table 8, there are 10 judges at the advanced track level, accounting for 5.4%, 31 in the intermediate track level, accounting for 16.8%, 54 in the primary track level, accounting for 29.4%, and 89 in the non-contact level, accounting for 48.4%. It can be seen from the above data that the sliding ability of the overall referee team needs to be improved and constantly enhanced.

As can be seen from Table 9, 89 referees have fewer than 5 referees, accounting for 48.4%; 39 referees have more than 5 referees, accounting for 21.2%; 16 referees have more than 10 referees, accounting for 8.7%; 40 referees have more than 15 referees, accounting for 21.7%. As a whole, it can be seen that a large number of referees have fewer referees, and the number of referees needs to be further increased. Enrich their own experience in refereeing, complete the requirements of the competition.

### 3) Few events and single training forms

Table 10 shows that 111 people have received national training, accounting for 60.3% of the total; 42 people have received provincial and municipal training, accounting for 22.8% of the total; 20 people have received training through the association, accounting for 10.9% of the total; 11 people have received training through the local sports bureau, accounting for 6%. From this set of data, we can see that most of the training is national

**Table 8.** Ability to Ski (Beijing Yuyang International Snow Resort) (n = 184)

Level	n	%
High level channel	10	5.4
Intermediate channel	31	16.8
Primary channel	54	29.4
non	89	48.4

**Table 9.** Number of referees (n = 184)

Frequency	n	%
5 below	89	48.4
5–10	39	21.2
10–15	16	8.7
15 above	40	21.7

**Table 10.** Training Level (n = 184)

Level	n	%
national	111	60.3
province	42	22.8
association	20	10.9
local sports bureau	11	6.0

**Table 11.** Training Situation (n = 184)

Situation	n	%
More theory than practice	73	39.7
More practice than theory	36	19.6
There are few communication and discussion rounds	14	7.6
There are many theories, practices and exchanges	61	33.1

training. It indicates that the step training of the project is lacking and needs to be adjusted.

According to the investigation on the training content at the present stage by consulting referees, 73 referees think theory is more than practice, accounting for 39.7% of the total number; 36 referees think practice is more than theory, accounting for 19.6% of the total number. 14 referees think less communication and discussion of the number of 14 people, accounting for 7.6% of the total number of people, think theory, practice, exchange of more than 61 people, accounting for 33.1% of the total number of people, a further analysis, we can see that at this stage, the form and content of single-board referee training is relatively simple, innovative training ability needs to be strengthened, training content and form need to increase change, To enhance the effectiveness of the training (Table 11)

### 3.2 Countermeasures and Suggestions

#### 1) Do a good job in top-level design, strengthen the construction of echelons, and innovate the training of referee reserve talents

The Winter Sports Management Center of the General Administration of Sport of the State can make the overall layout and overall planning of the reserve talent training of the snowboard parallel giant slalom referee as a whole, and complete the top-level design. Combining with the problems faced by the referees of the snowboard parallel giant slalom in the present stage of our country, organizing personnel from relevant departments to organize the medium and long term training program for snowboard parallel giant slalom referees (5 years, 10 years, 15 years), and establishing the stage goals from the aspects of selection, training, practice and talent preparation of the referees. Cooperate with



relevant ice and snow associations of various provinces and cities to strengthen the support of their referee reserve talent organizations, actively promote and strengthen the specific problems to be solved in the medium and long term according to the current situation of various provinces and cities, cooperate with the development of relevant referee training planning and implementation, ensure the effectiveness of human and material resources, complete the development in stages and in groups to ensure the implementation of relevant plans [5].

## **2) Strengthen professional training to improve the overall level of referees**

The level of referees includes the level of theoretical knowledge and practical ability. The level of theoretical knowledge can be reflected by the educational background of referees, and the level of practical ability can be reflected by the level of referees, experience of referees, gliding skills, etc. As the referee, the referees play an important role in the competition. It will directly affect the results of the athletes' participation and directly reflect the development process of the overall project and the event [6]. Therefore, it is possible to set up a referee training expert group, formulate the referees' handling manual, consider the comprehensive cultivation of all aspects of the quality and ability of referees, gradually establish a certificate on duty and annual assessment system, regularly connect with the world, and update the relevant knowledge content of referees. Constantly update the talent team, eliminate the low level of business referees. To strengthen the training of referees, it is suggested that referees at different levels should be trained 3–5 times a year, as well as the practice of referees in related competitions, promote the team management system of referees with sufficient experience and strong ability to drive new referees, and comprehensively improve the ability level of referees. Meanwhile, the Winter Management Center of the General Administration of Sport of China should take the lead in formulating corresponding regulations and detailed rules. Constantly promote the level of referees, improve the overall level of the referee team [7].

## **3) Strengthen policy guidance and financial support, and vigorously support ice and snow sports associations**

The development of referees should break through the mode that the provincial and municipal sports bureaus and other government departments should promote the work, give full play to the forces of all parties in society, make use of the current provincial and municipal ice and snow sports associations for better development, formulate a series of relevant policies, and support the ice and snow sports associations to train referees. The association is generally attached to schools, enterprises, venues directly office, as a bridge between the government and the industry personnel, can be used as a grassroots training, promotion units, in the referee training, events, project publicity and reserve personnel training plays an important role. Combined with the reform direction of sports and economic development, the ice and snow sports Association will play a more and more important role in project development, event holding and referee training.

The 14th Five-Year Plan for Sports Development has clearly proposed the evaluation of the system construction of national Individual sports associations, which shows that the role of national individual sports associations has been paid more and more attention [8]. Although relevant policies have been introduced at the national level at the present stage,

the project association, as the direct implementation and management of the development of relevant projects, does not have a strong project policy support policy [9]. Therefore, the Ice and Snow Sports Management Center of the General Administration of Sport of the State can provide strong support from the establishment of the association, the holding of the event, the publicity of the project, the training of referees and other aspects. It can set up special working groups and project funds, formulate relevant policies and measures to support the ice and snow sports association and ensure the policy implementation in place.

#### 4) Create star referees, expand publicity channels and increase awareness

To create star referees and expand publicity, the purpose is to enhance the influence of referees, so as to improve the visibility of the referees, enhance the confidence of the referees, deepen the pursuit of the community for referees, so that the referees continue to expand the team [10]. Star judges can be made through special interviews, biographies, special lectures and exhibition matches. Special interviews can be conducted through television and other media to make the public have a deeper understanding of the daily work and life of referees, show the personal charm of referees and enhance the public's favorable impression of referees. Biographies can be written by referees to elaborate the personal referees' personal biographies and other ways to increase the social identity of referees and improve the level of respect of referees. Special lectures can be conducted in the campus, enterprises and institutions and other places to give lectures on the knowledge, theory and practical experience of referees, so as to improve the popularity of referees among young people; Exhibition matches can use social resources to build snowboard games, which can not only improve the public's understanding of the event, but also increase the exposure of referees, and enhance the public's understanding of snowboard games and referees.

## 4 Conclusion

As a relatively new skiing sport, the development time of snowboard parallel giant slalom event is relatively short in our country. The events operation, the training of athletes and the training and improvement of referees have much space. The successful holding of the Winter Olympic Games can greatly promote the development of snowboard parallel giant slalom event, especially the training of referees. Only by constantly innovating the training mode of referees, giving effective policies and measures, and actively encouraging more interested talents to participate in the team of referees, can the snowboard parallel giant slalom develop continuously, so as to focus more attention on the ability of Chinese snowboard flat project to undertake competitions and the power of discourse in the international referee circle.

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