

Research on the Effective Application of Difficult Movements of Group C Jumps and Leaps in Competitive Aerobics Under the Guidance of Rules

Weiming Qiu¹

¹ Lomonosov Moscow State University, Russia

Correspondence: Weiming Qiu, Lomonosov Moscow State University, Russia.

doi:10.56397/SSSH.2024.04.05

Abstract

Competitive aerobics is carried out in accordance with the current competition rules, the rules of each round of the period will undergo some changes, so the difficulty of group C jump and jump will also undergo some changes, in this case, if the athletes have the best understanding of the changes in the difficulty of the C group jump and jump, then the C group jump and jump difficulty action can be adjusted according to the actual combination of training and difficulty, in order to allow athletes to better adapt and improve their own level, so as to ensure and motivate the players to play on the field. This affects the performance of the players on the field. Based on this, based on the rule-oriented background, this paper analyzes the related problems related to the effective use of competitive aerobics C group jump and jump difficulty movements through the literature method, video analysis method and data statistics method, and draws the conclusion that the factors of female athletes in mixed doubles group C jump and jump difficulty are still the mainstream and the characteristic difficulty is more obvious, which provides a more efficient application method, a more efficient training direction and training content for the jump and jump difficulty of group C of competitive aerobics. Hopefully, it will be useful to reality.

Keywords: rule-oriented, competitive aerobics, group C jumps and leaps, effective use

1. Introduction

1.1 Basis for Topic Selection

Competitive aerobics is a sports activity with competition as the main content. It trains and competes according to certain rules, certain projects and standards. The International Gymnastics Association believes that this sport has high technical content, high intensity and high aesthetic requirements. In this sport, athletes must perform a variety of different combinations of movements, and must perform the difficult Group C movements perfectly, which requires a high level of artistry and technical difficulty. This is why Group C movements will become the framework in competitive aerobics, which is directly related to the athletes' ranking and score in the official competition.

Every time new competition rules are introduced, it will bring many technical changes to competitive aerobics, and the overall quality and tactical level of athletes will also change accordingly. With the introduction of new aerobics rules, it is necessary to analyze and study the difficulty of Group C movements in competitive aerobics. It is necessary to apply them to the techniques of Group C movements, rather than purely technical analysis. Only by combining them with reality, based on reality, analyze and study it's changing characteristics and competition rules scoring content to achieve the purpose of predicting competitive aerobics.

1.2 The Meaning of Topic Selection

The rules of the new cycle of aerobics competition will change over time, and the difficult movements of Group C will also become more complex, and the requirements for athletes' physical fitness and tactical abilities will also become higher. Therefore, the coach must grasp the development trend of the difficult movements in Group C and select the difficult movements in Group C according to the competition rules. To meet the conditions of selection. At the same time as the new rules were released, the difficulty changes in the new rules were analyzed, and the new round of highly difficult technical development trends were carried out with the goal of maximizing the efficiency of the difficult movements of Group C of competitive aerobics guided by the rules, prediction, thereby promoting the rapid development of aerobics.

2. Literature Review

Zhou Yin believes in "Comparative Analysis of the Difficulty of Men's Single Events in the 2014 Shanxi Provincial Competitive Aerobics Competition" that in competitive aerobics, the quality of the men's singles athletes' completion of difficult movements determines their competition results. Important factors, and from the analysis of the selection of high and low difficulty and medium and low difficulty, there is a big difference. The difficulty ratio is uneven, the difficulty of the combination is not understood enough, and the single overall arrangement lacks shining points.

Based on the "Comparative Analysis of Difficult Movements of Three-person Exercises for Age Group Two of Chinese and Foreign Aerobics", Dai Feng conducted an investigation of the three-person exercise of age two groups in the five international aerobics competitions and found that the completion quality of difficult movements is an important factor affecting the performance of the group. The main factor of the final result, and our country's three-person gymnastics is relatively weak in difficulty and comprehensive ability, especially in terms of strength and quality. This is a common problem for female athletes in our country. In terms of difficulty combination, there is no innovation, but the difficulty distribution of the entire set of movements is relatively reasonable and balanced. The arrangement and selection of difficulty are proposed and reasonably arranged according to the actual situation of the players, with special attention to the qualitative specifications of difficult movements.

Lu Heng's "Research on the Difficulty Movements of Women's Individual Exercises in the 14th World Aerobics Championships" pointed out that when selecting difficult movements for women's individual events in the world today, they all choose difficult movements between 0.6 and 0.8 points, and gradually select the most difficult movements. Difficulty with high scores or close to the highest scores is an inevitable trend in the development of competitive aerobics in the future. Groups C and D have more choices in terms of flexibility and balance than Groups A and B, when there is no shortage of difficulty groups, most people will choose the two difficult movements of group C and group D.

In "Research on the Development Trend of International Competitive Aerobics Competition Rules and Enlightenment to my country", Gu He took the difficult movements of high-level women's singles in China and Europe as an example, and believed that the difficulty of women's singles chose a difficulty score of 0.8, Chinese athletes already have certain advantages in completing difficult movements. The changes in difficulty action scores over time show a high-low-high trend. The changes in difficulty scores of European athletes are slightly different than those of domestic athletes.

In the "Analysis and Research on Various Difficulty Actions and Difficulty Combination Actions of the 10th World Gymnastics Championships", Wang Yuanyue analyzed the difficulty and difficulty combination of the complete set of actions selected by the top six contestants of the 10th World Gymnastics Championships. The results showed that in the 10th World Gymnastics Championships, the difficulty combination was mainly composed of two difficulty combinations, C-A and C-C, totaling 27, accounting for 69.2% of all difficulty combinations; In Group 10 C, the frequency of using "front difficulty" is the highest, mainly in body jumping, accounting for 46.2%. In "back difficulty", Group A's main exercise is hip lifting, accounting for 59.0%; The difficulty score before and after the combination of difficult actions is mainly 0.7; The combination of difficult actions is the most common among the 1-2 difficulty parts. In the 10th World Championships, Chinese athletes achieved first and second place in the six and three rounds of the competition, with a total of three difficulty combinations. One link with a difficulty coefficient of 0.1 was the key to this competition.

In Jiang Tao's "Research on Training Methods of Group C Difficult Movements in Competitive Aerobics", regarding the training of Group C difficult movements, he pointed out that the current domestic training projects are relatively narrow and lack planning and theoretical foundation, and emphasized that in training. The most important thing is to increase physical fitness training so that athletes can maintain better posture and movements in the air.

In Professor Zhang Xiaoying's "Research on Difficulty Combinations of Competitive Aerobics", this article takes the difficulty combinations of the top eight in 2008, 2010 aerobics and the 2009 World Games as the

research object, and concludes that there are 143 difficulty combinations in the three World Games, among which there are five main combinations: A-B, C-A, C-C, D-C and B-A. Type C-A is the most common, accounting for 64.3%, followed by C-C. Women are worse than men, so it is recommended to use C-C as the main type. The difficulty level before the difficulty combination score is generally greater than the difficulty after, with body jumping, the main ones are body splitting, lifting hips into the air, jumping, etc.; difficulty combinations are mainly in the early and middle stages, and mostly two-level difficulty combinations in the later stages; in addition, he also suggested using different extra point forms to innovate and improve difficult combinations Application.

Fan Wen and Yin Yue in “Looking at the Development of Difficult Movements from the Updates of FIG Competitive Aerobics Competition Rules Over the Years”, this article based on the competition rules over the years, came up with four main competitive aerobics movements: A, B, C, D. Group C mainly performed jumping and jumping difficult movements. Group D showed significant improvement in flexibility and balance movements. Movements with higher scores also improved, while movements with less scores decreased relatively.

In “Changes in Difficulty of Female Individual Exercises in Competitive Aerobics Under Rule Changes”, Wei Xiaowei focused on analyzing the differences in the selection of difficulty groups for female individual events under the new rules, and analyzed the difficult movements under different rules and requirements were discussed, combined with the competition rules, a simple evaluation of its difficult movements was carried out, and useful suggestions were put forward for the development and training of competitive aerobics in our country.

Zhang Xue’s “Changes and Analysis of FIG Competitive Aerobics Rules from 2017 to 2020” believes that the new cycle rules have significant changes in the difficulty and minimum number of completion groups in the entire set of movements. The new cycle rules require all competitions except for individual events to have 9 out of 10 reduced, and require the difficulty of each competition to be reduced from 4 groups to 3 groups. She also stated that according to the new cycle rules, the duration of each competition will be reduced from 90 seconds plus or minus 5 seconds to 80 seconds plus or minus 5 seconds, which will further improve the technical level of athletes and guide the development of competitive aerobics towards stronger, more difficult, and more beautiful aspects.

Wei Fang’s “Research on Complete Sets of Mixed Pairs Events at the 14th World Aerobics Championships” investigates the complete set of movements at the 14th World Aerobics Championships from four perspectives: difficult movements, gymnastics movements, theme content, and theme style. Through analysis, it was found that Group C has the highest difficulty coefficient of difficult moves. C+C and C+A are the most frequently used combinations by many teams. Each team has different styles of physical moves, but they all have their own national characteristics. Features: thematic content, cohesion, fluency, coordination of lifting and dynamism, and application of spatial levels are the main judgment criteria. In terms of theme style, choose music that suits the candidate’s personality and add it appropriately. The second phase of music reflects the theme of the entire set of movements and attracts the attention of the audience and judges.

Wang Congying pointed out in the 2017-2020 Competitive Aerobics Group Choreographer that when choreographing, the complexity of the exercises can be increased so that the coordination and frequency of the athletes’ arms and steps can be fully reflected. According to the actual ability of the players and combined with the needs of the competition, difficult movements with high scores and difficulty are selected to fully demonstrate the technical standards of the players; when allocating difficult movements, it should be based on the music structure and the ability of the athletes. Depending on the difference in force and space, the difficult actions should be sequenced appropriately. At the same time, creators should also pay attention to the overall coherence of the transition.

It can be seen from the above discussion that with the development of world competitive aerobics, the competition in sports competitions has become increasingly fierce; at the same time, the application of rule efficiency in our country has become more and more important, and has attracted more and more attention from the theoretical circles. The method of analyzing the efficiency of competitive aerobics rules from the three levels of difficulty, art, and completion is a way of thinking commonly adopted by many scholars, which has certain reference value for the research of this article.

3. Research Objects and Methods

3.1 Research Object

Under the new rules, the changes in the difficulty of jumps and jumps in group C of aerobics were used as the research object.

3.2 Research Methods

3.2.1 Documentation Method

According to the research needs, we logged into the China Journal Network and China Knowledge Network to search for relevant literature on sports aerobics, group gymnastics projects, group C movements, etc., and selected 20 representative works from them as reference. Relevant literature was analyzed to provide theoretical support for the research of this article.

3.2.2 Video Analysis

By analyzing the combined movements of the top eight players of the 15th World Aerobics Championships and the top eight players of the 2020 National Aerobics Championships, and comparing the relevant data of the difficult movements of Group C, and based on the difficulty change characteristics of the new rules, reveals the development trend of difficult movements of group C jumps and jumps in competitive aerobics under the new rules.

3.2.3 Statistics

The original data were statistically analyzed and analyzed using ExCel2016 software.

4. Research on the Changes in the Difficulty of Jumps and Jumps in Group C in the New Scoring Rules

The scoring rules of competitive aerobics divide difficult movements into four major groups: Group A, Group B, Group C, and Group D, which correspond to: dynamic strength, static strength, jumping and leaping categories, balance and Flexible. The new rules promote the development of competitive aerobics. According to the specific conditions of the competition, the difficulty number, difficulty content, special difficulty error deductions, difficulty points, etc. are adjusted and corrected. The scoring rules for competitive aerobics, Group C, have a wide variety of difficulties, and there are many items for players to choose from. Group C movements have the highest usage rate in the entire set of movements. By comparing the difficulty indicators in the old and new rules, the new rules Group C The difficult movements show the following characteristics: the original difficulty score changes greatly, the difficulty score of Group C movements is high, and the difficulty score of split jumps, landing splits, landing push-ups, etc. increases. The number of high-score difficulties is increasing, while the number of low-score difficulties is decreasing. The difficulty of Group C is decreasing in total. The total number of newly added difficulties should be lower than the total number of canceled difficulties. The difficulty of half-turn turns is reduced, and turns of the same difficulty are increased, increasing the difficulty score. The number of deductions for special errors is strengthened to make it more detailed and strict. The changes in Group C difficulty movements in the new rules will be statistically analyzed and analyzed below.

5. Changes and Analysis of the Difficult Movements of Group C Jumps and Leaps in the New Scoring Rules

5.1 Changes and Analysis of Group C Jumping and Leaping Difficulty Movement Scores

The modifications to component C score values of the old and new rules have been sorted out. There are 47 score changes in the new rules, of which 5 have experienced a decrease in scores and 42 have experienced an increase in scores. The difficulty score of Group C ranges from 0.1 to 0.3. The score increase between 0.2 and 0.3 is mainly in the horizontal spin and spin category. The spin category difficulty is more common in my country's track and field events. The difficulty of the exercise is also an action with a high scoring rate among the difficult movements in Group C. It can improve the performance of competitive aerobics, promote the integration of competitive aerobics with other sports, and is conducive to the performance of athletes in competitions. Excluding the 180 horizontal splits, although the difficulty score of flipping and Cossack jumps has dropped by 0.1, it is still a highly difficult action. The new rules increase the difficulty of component C, including pike jumps, pike split jumps, vertical split jumps, horizontal split jumps, etc., as well as pike split jumps, feeds, horizontal spins, and simple transformation jumps, spin type difficult movements. From the above analysis, it can be seen that the difficulty score changes in the new rules of Group C have the following characteristics: the original difficulty score changes greatly, and the difficulty number with increasing scores is much more difficult than the difficulty number with decreasing scores; the difficulty score of Group C, where the scores all increase, is vertical. Difficult movements such as split jumps, horizontal split jumps, jumping and landing into splits, jumping and landing into push-ups, etc. These new changes in the scores of difficult movements in Group C indicate that the new rules will pay more attention to the spatial transfer between difficult movements in Group C and make full use of the space, thereby improving the flexibility, strength and explosive power of the players. In order to better master the high-scoring difficulty of Group C, it is necessary to strengthen the training of the difficult movements of Group C.

5.2 Changes and Analysis of the Number of Difficult Jump and Jump Movements in Group C

After carefully counting the different scores in the new rules and the old rules of Group C, it can be seen from Table 1 that the total number of difficulties in Group C of the old rules is 161, and the number of difficulties in

Group C of the new rules is 137. In the total number of difficulties, in terms of performance, the new rules have 24 fewer rules than the original ones; the difficulty numbers of the new rules in the scores of 0.1, 0.7, and 1.0 have not changed, while in the scores of 0.8 and 0.9, the difficulty numbers have increased, and other scores are reduced accordingly. Group C and difficult movements still account for half of the total, but overall it has been reduced. The largest increase in the difficulty movements of Group C in the new rules is 0.8, followed by the difficulty movements of Group C 0.9. This change reflects that the occurrence rate of Group C difficulty movements will increase in the frequency of 0.8 and 0.9 in the combination. The occurrence rate of high-score difficult moves is increasing. In Group C actions of the new rule and the old rule, the score of the new rule is lower than that of the old rule from 0.2 to 0.6, and the score of the new rule is higher than that of the old rule from 0.7 to 1.0. It can be seen from the above results that the characteristics of the changes in the difficulty of each score in Group C are: the difficulty of high scores has an upward trend in numbers, while the difficulty of low scores is decreasing, and the overall difficulty is decreasing, while the increase in high score values indicates that the difficulty of group C high score difficulty scores increases.

Table 1. Statistics on the number of difficult actions of each score in Group C of the new and old rules

Difficulty Score											
Rule	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	Total
Old Version	0	3	9	12	25	32	35	23	14	8	161
New Version	0	1	6	11	18	29	23	24	15	8	137

Table 2. The impact of rule changes on the difficult movements of group c jumps and jumps in competitive aerobics

	Quantity	Proportion
Very important	46	46%
Generally	49	49%
Unimportant	5	5%

5.3 Changes and Analysis of Difficult Movements of Group C Jumps and Jumps

Through the analysis of the rising and falling difficulty content of Group C of the new rules, there are a total of 30 new difficulties in Group C of the new rules, and 57 difficult actions in the old rules have been eliminated. Group C has become the group with the largest change among the four groups. The newly added difficulty items include: pike split jump, tuck jump, vertical split jump, horizontal split jump, and horizontal spin difficult movements. Except for horizontal spin, all new difficulties are based on the original difficulty level. There have been new changes, the number of turns has been increased, and the difficulty score has also been improved; on the basis of the difficult horizontal spin movements, the difficulty of group horizontal spin has been eliminated, new difficult movements have been added, and the original straight water spin has been added. On the basis of flat rotation, the rotation degree and scoring rules are further refined and improved. In terms of difficulty, Group C has canceled the difficulty of tamano, step jump, jump landing, and Wensen landing or one-arm push-up in the jump step category. As can be seen from the above, the characteristics of Group C to increase and reduce difficulty are: the difficult movements of landing in one-arm push-up position and half-turn body are cancelled, in order to achieve a more complete and balanced goal; the new high-difficulty movements include: Pike split jump, tuck jump, horizontal split jump, vertical split jump, horizontal spin, etc. Compared with the difficult moves of Group C in the old rules, the new changes of Group C difficulty movements in the new rules include the addition of rotation. The degree of the body has developed and promoted the difficulty to a certain extent. Under the new rules, this type of difficulty will have great potential. At the same time, the cultivation of jumping ability and turning technology should be strengthened, especially the horizontal axis rotation technology.

5.4 Changes and Analysis of Points Deduction for Special Errors in Group C Jumping and Jumping Difficulty

The special error score of Group C under the new rule has been reduced by 0.2 points compared to the old rule, and an additional deduction standard of 0.5 points has been added. At the same time, standards for push ups, level spins, spins, difficult touchdowns, and arm postures are also established, which are very strict and require higher levels of completion. Moreover, scores are more difficult to obtain. This change fully reflects the increasing difficulty and strictness of Group C, aiming to develop the difficulty of Group C towards high,

precision, and sharpness.

6. Analysis on the Effective Application of Difficult Movements of Group C Jumps and Jumps in Competitive Aerobics

By analyzing the complete set of movements of the top eight players of the 15th Aerobics Championships and the top eight players of the 2020 National Aerobics Championships, and comparing the relevant data of Group C jumps and jump difficulty movements, the following analysis was obtained:

The difficulty of Group C, whether domestic or foreign, is the same. They all chose vertical split jumps, scissor jumps, pike jumps, pike split jumps, and Korsak jumps. The difficulty level of jump jumps and pike jumps is the same both domestically and internationally. The difference is that the ranking of other difficult movements in my country's Group C difficulty movements from low to high is vertical split jump = scissor transformation jump < pike split jump < pike jump = Korsak jump, from the data that can be obtained here shows that our country has selected the pike jump, the Korsak jump, the split jump, the pike split jump, and the scissor jump as the mainstream difficult movements of Group C; other types of difficult movements in the international Group C difficulty movements. The ranking of weight from low to high is pike split jump < vertical split jump < Korsak jump = pike jump = scissor jump, from which we can get the international choices of pike jump, Cossack jump, vertical split jump. Difficult movements such as split jumps and scissor jumps are the main difficulty components of Group C, and the usage rate of pike split jumps is low; in foreign countries, scissor jumps, vertical split jumps, and pike split jumps are classified into Group C. The priority for selecting difficult movements is higher than in China, and the selection rate of difficult movements in Group C of pike and jump is 9% higher. China has certain advantages in pike and jump movements. The usage ratio is higher than that in foreign countries. Experts commented on the probability of selecting difficult moves in Group C during the interview. First, the difficulty of Group C accounts for a large proportion of the rules, and there are also many high-score difficulty moves, which allows players to have more opportunities. At the same time, the change in the rules has also reduced the difficulty of Group C. At this difficulty, Group C and other difficult movements can be perfectly connected together, making better use of the venue. However, as the difficulty scores of split jumps and landing splits increase, they are easier to master than female athletes; therefore, in the new rules, Group C difficult movements are still the mainstream in choosing difficult movements.

Among the domestic and international complete sets of events, the more difficult events are mainly in the C-level difficult movements, and the difficulty of the Cossack jump and pike jump for Chinese athletes is much more difficult than that of athletes from other countries. But overall, the scores for other types of difficult movements are higher abroad than in China. According to this phenomenon, according to interviews with experts, it was found that the difficulty of the difficult movements of the female C group in my country is lower than that of foreign countries. This is mainly because the jumping power of the lower limbs of female athletes in our country is relatively weak. It is difficult to express the theme and performance of the entire set of movements. Under the influence of various factors such as fun, display and lifting coordination, as well as the physical distribution of the players, the difficulty requirements have been reduced accordingly. To this end, our country needs to improve the jumping ability of female athletes' bodies and lower limbs, and improve their ability to master and complete the difficult movements of high-scoring Group C.

7. Conclusions and Recommendations

7.1 Conclusion

7.1.1 The Factors Restricting Female Athletes Are Weakening and the Selection of Difficult Jump and Jump Movements in Group C with High Scores Is on the Rise

With the continuous improvement of teaching methods and the scientificization and rationalization of teaching methods, the development speed of competitive aerobics is getting faster and faster. As a separate event in the aerobics competition, the event is also steadily developing to become more distinctive. As the technical level of the athletes improves, the competition between the high-scoring Group C movements has become the key to the battle among outstanding players. The average score of Group C movements used by each team in the top eight of the 18th World Aerobics Championships and the 2020 National Aerobics Championships in the four groups of movements are reflected in foreign countries as Group A: 0.73, Group B: 0.67, Group C: 0.7, Group D: 0.65, in China, it is Group A: 0.64, Group B: 0.6, Group C: 0.72, Group D: 0.69; the data shows that the action of choosing the high-scoring Group C is relatively stable, and the difficulty of the high-scoring Group C is mainly Group A, Group C and Group D are concentrated. Under the guidance of the new rules and based on actual competition experience, the restrictions on female athletes' selection of difficult movements in high-scoring Group C will gradually decrease, and the use of difficult movements in high-scoring Group C will become more and more frequent, mainly focusing on Group A, Group C and Group D.

7.1.2 The Difficulty of Group C Jumps and Category Jumps Is Still the Mainstream Choice, and the

Characteristic Difficulty Is More Obvious

Competitive aerobics is a skill-oriented event that performs difficult-to-beauty events. The selection and completion of difficult movements are the keys to determining victory or defeat, and it exists as an individual event in competitive aerobics competitions. The difficulty of its movements, the selection should follow the rules of rule changes and develop in the direction of representative characteristics of competitive aerobics events. The number of use of difficult movements in the four groups A, B, C, and D by the top eight in the individual exercise finals of the 15th World Aerobics Championships and the 2020 National Aerobics Championships in the complete set of movements is reflected as follows: World Championship A Group: 2.13, Group B: 0.38, Group C: 5.13, Group D: 1.38, Championship Group A: 2.5, Group B: 0.38, Group C: 4.5, Group D: 1.63; according to the data, the proportion of difficult movements selected by the four groups in our country and internationally is from lowest to highest: Group B < Group D < Group A < Group C, among which the proportion of the difficulty of the four groups ABC and D in the complete set of movements has been digitized by computer. The analysis shows 2:0:5:2. Group B difficulty is almost never selected, and Group C difficulty still accounts for the largest proportion of selections. The reason is that on the one hand, the new rules allow difficult groups to be missing in the complete set of movements, and on the other hand, the difficulty of group B is static difficulty, the training cycle is long and it requires a high amount of physical energy to complete, which is very important for the candidates. It is a shortcoming for hands, which is also a weakness of female players. Therefore, under the new rules, female players can choose A, C. Among the difficult movements in Group D, the difficult movements are more conducive to female athletes and easier to win in competitions. The new rules have adjusted the difficulty of different groups, as follows: Group A: 70 pieces, Group B: 31 pieces, Group C: 137 pieces, Group D: 45 pieces. The numbers from low to high are: B Group < D Group < Group A < Group C; In terms of difficulty improvement, Group A focuses on difficult movements such as sharp support, and Group C mainly focuses on horizontal split jumps, pike jumps, vertical split jumps. For difficult movements such as pike and split-leg jump, Group D mainly focuses on difficult movements such as horizontal controlled leg rotation. Increasing the difficulty score will make it easier for athletes to use these difficult movements. In terms of newly added difficult movements, Group A mainly performs hip lifts and full leg rotations, Group C mainly performs body jumps, vertical splits, bent body splits, horizontal rotations, and horizontal splits, and Group D mainly performs body jumps, vertical splits, split legs, horizontal rotations, and horizontal splits. The group mainly focuses on difficult movements such as balanced turns. Judging from the adjustments to the competition rules and feedback from competition practice, the difficulty types of Group A will be mainly difficult movements such as reverse cuts, thrusts, and hip lifts. As the training level increases, female athletes will the technical level of athletes will also improve, and the frequency of use of Tomas difficulty moves by male athletes will become higher and higher. The difficulty of Group C is mainly difficult movements such as pike jumps, Korsak jumps, pike split jumps, scissor transformations, and vertical split jumps. The difficulty of Group C will still retain its dominant position in the selection of difficult movements. Group D mainly consists of Elliu-type difficult movements, and the difficult movements are mainly unsupported Elliu-type difficult movements. Under the guidance of the new rules, the citation rate of difficult movements has gradually increased.

7.1.3 Summary of the Development Trend of the New Rule C Group Jumping and Leaping Difficulty Movements

The adjustment and modification of the difficulty content of the new rules will make the selection of high-scoring difficult moves in Mixed Doubles less subject to the competitive ability of female athletes, and the selection of high-scoring difficult moves will be concentrated on Group C jump and jump category difficulty. Group C jump and class jump difficulty are still the mainstream choices, and they appear more in the form of connections. In terms of difficulty, the new rules not only cancel the difficulty of semi-turnarounds, but also encourage the use of combination difficulties, and have stricter requirements for the completion of difficult movements. Under the premise of ensuring the quality of difficulty completion, difficult rotation technology and connection technology will be mixed doubles difficulty The focus of movement training.

7.2 Recommendations

7.2.1 Both Men and Women Must Be Considered, and the Difficulty Is to Ensure Quality

The new rules have higher standards for the completion quality of C-level movements than before, and more detailed deductions for special errors. The training of C-level movements requires improving the technical level of coaches and athletes, and innovating training. The method focuses on improving the quality of difficult movements and completing Group C movements with precise and flawless posture. During training, both male and female athletes should take care of it. For female athletes, focus on mastering the movements of groups A and C, especially push-ups and splits when landing. For male athletes, the focus is on the movements of groups D and C. Completion, training for the speed of attack and completion of difficult movements.

7.2.2 Pay Close Attention to the Mainstream Difficulty and Improve the Advantages of Group C Jumping and

Leaping Difficulty Movements

Judging from actual competition experience, Group C difficulty is still the mainstream choice. Group C difficulty can not only make full use of the venue, but more importantly, connect technical movements and difficult movements, so during training, we must focus on the target. The grasp of Group C's high score value and difficulty. During training, on the premise of complying with the rules, you can refer to the athlete's set of movements and technical level to select Group C difficult movements to maximize the athlete's advantageous movements. The use of advantageous difficulty levels can not only improve the completion of difficult tasks, but also fully demonstrate other elements in the complete set of movements, thereby improving the artistry of the entire set of movements. Therefore, it is necessary to increase the difficulty of the player's advantage in training, strive for excellence, and increase the chance of winning.

7.2.3 Improve Turning Technology and Innovate the Difficulty of Arrangement and Combination

The new rules cancel the half-turn difficulty. Group C movements increase the rotation of difficult movements, and their spatial performance is increased vertical and lateral rotation degrees. During training, coaches should scientifically analyze the technical principles of Group C movements and use equipment to perform them. Targeted exercises to improve their turning skills and master the high-scoring Group C movements. In terms of difficulty arrangement, be innovative, strengthen the training of technical movements, and strengthen the techniques of "skills plus difficulty" and "difficulty plus difficulty" to lay a solid foundation for difficulty arrangement and make effective connections in the competition.

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