

Research on the Current Situation and Countermeasures of the Development of Middle Air Volleyball in Colleges and Universities

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Abstract: Nowadays, the Development of Air Volleyball Has Become a Hot Topic. This Study Uses the Methods of Literature, Questionnaire and Mathematical Statistics to Carry out a Modern Scientific Research on the Current Situation of Air Volleyball in Colleges and Universities in Guangxi. This Paper Makes an Investigation from Several Dimensions of the Development of Air Volleyball in Colleges and Universities in Zhejiang Province. through Scientific Investigation and Research, We Know That the Establishment of a Stable Long-Term College Air Volleyball Team, the Training and Introduction of Professional and Technical Personnel, and the Standardized Scientific Training of Air Volleyball Can Fully Promote the Development of Air Volleyball in Colleges and Universities.

1. Introduction

Volleyball, as a Competitive Sport, Has Very High Requirements for the Venue and Athletes, Which is Not Conducive to the Popularization and Promotion of Sports[1]. in 1984, in Order to Carry out Sports Activities for the Elderly, Jining Branch of Hohhot Railway Bureau of China Used Two Balloons Tied Together Instead of Volleyball in a Way Similar to Volleyball. Two Balloons Developed from Balloons to Children's Soft Plastic Balls[2-5]. in the Later Stage, Simple Competition Rules Were Formulated by Imitating Volleyball, Which Gave Birth to Air Volleyball. Air Volleyball is a Mass Sport Which Integrates Sports, Leisure and Entertainment. as a New Sport, It Has Been Favored by More and More Old Friends. Air Volleyball is Made in China[6-8]. as One of the Five Competitive Events of the National Senior Sports Association, Air Volleyball Has Been Well Promoted in Zhejiang, Fujian, Shanghai, Jiangsu, Hunan, Guangxi, Chongqing and Other Places Since It Was First Launched by China Locomotive Senior Sports Association. Especially in Zhejiang. Air Volleyball is Suitable for People of All Ages to Take Part in Physical Fitness Activities Because It is Moderate and Not Fierce. It is Highly Collective and Must Be Coordinated, Which is Conducive to Show Solidarity and Moral Demeanor; the Rules Are Wide, Any Part of the Human Body Can Touch the Ball, Sometimes in Order to Save the Ball, When the Hand is Too Late, You Can Kick with Your Feet, as Long as You Hit the Ball Above the Ground in the Opponent's Field According to the Rules. It's Easy to Understand and Easy to Learn. It's a Popular Sport for All Ages.

2. Basic Description of Air Volleyball

Air volleyball is made of soft plastic. The game ball weighs about 120g, which is 100-150g lighter than the ordinary volleyball; the circumference is 74-76cm, which is 15-18cm longer than the ordinary Volleyball (Tab.1).

Table 1 Basic Parameters Of Air Volleyball

	Weight/g	R/cm
Air Volleyball	120	74-76
Volleyball	220-270	58-62



Fig.1 Air Volleyball

2.1 Rules of the Game

2.1.1 Team member

1) Each team can have a maximum of 8 members. The top of each member must have a number, from No. 1 to No. 8. The front number is 10cm square, the back number is 15cm square. The team leader should have a clear mark on the chest of his coat.

2) Coaches and players should understand and abide by the rules, and obey the referee's judgment with good sports moral style. In case of any doubt, only the team leader can ask the referee for an explanation, and the coach shall not raise any objection or ask for an explanation.

3) Coaches and team members must respect the referee and other team members, and shall not influence the judgment of the referee by any behavior. No action or performance shall be taken to delay the dead ball time or be deemed to delay the game intentionally.

2.1.2 Conduct

1) Position of players on the field: the players of both sides are divided into three in the front row and two in the back row. The left of the front row is No. 4, the middle is No. 3, the right is No. 2, the left of the back row is No. 5, and the right is No. 1. At the beginning of each game, the players on the field must stand close to the order set by the position table, and they shall not be changed in this game. In the new game, the position of each team member can be rearranged.

2) Suspension: in each game, each team can request 2 times of suspension, each time for 1 minute. The suspension is only allowed after the coach or the team leader requests the second or first referee when the ball is dead. After the first referee's whistle, the match should be continued immediately. A team requesting a third suspension shall refuse and give a warning. If the first referee has whistled and served, and the player has not yet sent out the ball or asked for suspension at the same time with the whistle, he shall refuse. If the second referee mistakenly whistles at this time and allows suspension, the first referee shall not agree and shall whistle and serve again.

3) Replacement: each team can replace up to 6 person times in each round, 1 person time in the next round. When a team is replaced, the coach or the captain of the field shall make a request to the second or first referee when the ball is dead, and state the number of the replacement and the number of the players. When the referee permits the replacement, the players on the field shall be ready to go up and down from the front field. If the players are not ready, the team shall be fined a suspension.

2.2 Score: Only When the Serving Team Wins a Goal, 1 Point Will Be Obtained. in the Decisive Game, No Matter the Serving Team or Receiving Team Wins a Goal, 1 Point Will Be Obtained.

2.2.1 Win a game: when a team gets 15 points first and exceeds the other team's 2 points, or when both sides score 16:16, who gets 1 point first and 17:16, the team wins a game. In a decisive game, the team wins when it wins 15 points and exceeds the opponent by 2 points.

2.2..2 Those who do not show up after 5 minutes of the specified time will be given a waiver, and the other side will win with a score of 15:0 and a match of 2:0 in each game. Teams are not

allowed to abstain and strike without proper reasons. Otherwise, the team will be disqualified from participating in the company's sports competition within three years.

2.3 Actions and Fouls

(1) when the serving team wins a ball or the receiving team obtains the service right, the team member must rotate a position in a clockwise direction, and the service of the team member transferred from the rotation to position 1. If the service is not rotated according to the service order, it is a rotation error, which must be corrected immediately and the service right is lost.

(2) the server must send out the ball within 8 seconds after the first referee's whistle serves. If the server fails to hit the ball and the ball does not touch the server, the server is allowed to continue serving.

(3) the members of the serving team shall not obstruct the other party in any way from observing the serving team members and the flight route of the ball.

(4) when serving, judge the wrong position of the players, based on the part of the players' body on the ground. At the moment when the server hits the ball, before the ball is not hit, the position of the same row of players shall not exceed or be parallel to each other, and the front and rear row of players shall not exceed or be parallel to each other. That is to say, No. 4 team member shall not stand on the right side of 3 or 2 team members, and No. 2 team member shall not stand in front of or parallel to 2, 3 or 4 team members. Otherwise, it shall be judged as the right to lose the ball or the score of the other party. The server and our No. 5 player are not limited by the position.

(5) if the ball touches the net, it will be regarded as a violation. If the ball touches the top during serving and competition, it will be treated as a violation.

2. When a batsman hits the ball, he intentionally or unintentionally catches the ball and stops it in his hand or uses his arms to hold the ball for a long time or uses his hands to rush the ball to a long time before sending the ball out, which is a foul. If a member touches the ball more than once in a row on any part of his body, he shall be deemed to have committed a continuous hit (excluding block).

3. In the middle line crossing and net touching competition, if a player steps over the middle line, he / she shall be convicted of a foul in the middle line. If any part of his / her body touches the net, he / she shall be convicted of a foul in the net touching. If the net touches his / her own player due to the opponent's hitting the net, he / she shall not be counted as a foul in the net touching.

2.4 Offensive Hitting (Take a Closer Look At This, It is Obviously Different from Hard Volleyball, See Figure a Below)

(1) a member may make an offensive stroke on the ball of any height in the backcourt, but shall not touch or step over the limit line when taking off, otherwise it is a violation of the rule.

(2) if a player has a front court area and uses the strong offensive action of buckle, wipe and press lifting to hit the ball higher than the edge of the ball net into the opposite area, he will be convicted of a foul. Such as the use of small offensive pass, top, pick action, the bottom or bottom half of the ball, so that the ball has a certain upward arc over the net is not a foul.

(3) the players have the front court area. For the ball lower than the net edge of the ball, any hitting action can be used to hit the ball into the opposite area.

Blocking and passing

(1) two members in the back row shall not block. If he participates in blocking and plays the role of blocking, he shall be convicted of a foul.

(2) block does not count as one shot, but also one more shot.

it is not allowed to block the other party's serve and the ball that the other party's players directly hit the net in the front area, but only the ball that the other party's players directly hit the net in the back area.

(4) before Party A's players finish hitting the ball directly to the other party, if Party B's hand touches the ball over Party A's area, Party B's players shall be convicted of a foul.

3. Investigation on the Current Situation of Air Volleyball Development in Zhejiang Universities

80% of the regular colleges and universities in Zhejiang Province offer the course of air volleyball. The teaching objectives of each school are clear, and the purpose of learning and mastering the “three bases” of air volleyball is clear. The number of class hours is 28, which can basically enable students to master the “three bases” of air volleyball. The teaching content is mainly based on the basic theory teaching, brief competition rules and referee methods, and basic technical and tactical teaching. The form of the class It is theory + technical skills + assessment; the assessment content is mainly theory + technology + physical quality test; the motivation of college students to participate in air volleyball is to like and experience the charm of air volleyball; the organization form of air volleyball exercise outside class is mainly community, spontaneous group, club, class and grade; the population participating in the activity can not reach the standard of air volleyball population; class and grade class The development of outside activities is not ideal. The publicity activities, lectures and referees' training activities organized by the community are random and have no system. There are 25 air volleyball teams in Zhejiang universities, but they are all temporary teams. Only one team is amateur long training team, and most of the training methods are centralized training, and the weekly training times have reached More than three times, the source and composition of the team members are mainly ordinary college students accounting for 68.25%; sports majors accounting for 31.75%, the level of athletes participating in the competition is not high, the professional titles of coaches are mostly lecturers accounting for 67.86%, while young and powerful, only 25% have the deputy senior professional titles, the coaches are only 39.29% of teachers with professional background of air volleyball, the air volleyball competition in the school is once a year, and the participating teams have no difference Qi, the main way to invest in the school level competition is that the school has allocated special funds to the volleyball competition in Zhejiang for 10 years. In 2017, the competition was resumed. There are 27 universities in total, accounting for 75% of Zhejiang undergraduate colleges and universities. The main way to invest in the competition is special funds, accounting for 63% of the investment way. The facilities of the university are old, the quantity is insufficient, the quality satisfaction of the venue (Museum) is not high, and the utilization is not good The rate is not high.

4. Conclusion

In the face of the survey results, it is suggested to increase the weight of the curriculum of College air volleyball, to increase the basis of curriculum arrangement for the development of air volleyball; to increase the popularization of air volleyball in Colleges and universities, to strongly promote the development of air volleyball; in the construction of professional and high-quality air volleyball team in Colleges and universities, efforts should be made to build a long-term and stable air volleyball in Colleges and universities Team; in terms of talent introduction, the introduction of air volleyball major and high-quality talent team; further specialization and standardization of air volleyball competition in Colleges and universities; in terms of venue construction, increase investment in the construction and maintenance of professional venues, actively guide, increase publicity, and achieve strategic goals.

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