

Research on Factors Affecting College Tennis Players' Performance

Zhong Wei^{1,a}, Yao Kang^{2,b*}

¹Xi'an Technological University, No. 2 Xuefu Middle Road, Xi'an, Shaanxi Province, China

²Xi'an Physical Education University, No. 65 Hanguang Road, Xi'an, Shaanxi Province, China

^aemail: weizhong@xatu.edu.cn, ^{b*}84355881@qq.com

Abstract: The article adopts the methods of literature review and interview to investigate and analyze the performance of college tennis players in competition. Based on the theory of event groups, the article analyzes the players' performance on the spot from three factors: individual, opponent, and referee, which affect the competition performance. The research concludes that the current situation of tennis development in universities is characterized by low popularity of tennis, insufficient tennis facilities, and a lack of tennis cultural atmosphere, which has affected the promotion and development of tennis. The tennis performance of college students is influenced by their competitive ability, competition performance, competitive and training status, competition conditions, and competition experience. 3. It is recommended to adopt the concept of "replacing practice with competition" in daily training and teaching, attach importance to the construction of competition psychology, build a tennis training field, and form a tennis training team; In response to the lack of continuity in tennis learning and poor teaching effectiveness, attention should be paid to the training of tennis professional teachers and the increase in course hours.

Keywords: Tennis; Ordinary college students; Competition; Influencing factors; analysis

1. Introduction

With the development of competitive sports in our country, social sports and school sports are also in the ascendant, and various folk sports events such as blooming flowers are competing to carry out. Tennis competitions are being held in full swing in various regions, and a large number of tennis talents and excellent tennis organizations have emerged. However, we also see some shortcomings in tennis competitions. The author analyzes and sorts out the problems found, hoping to provide reference for the development of regional tennis industry.

2. Literature Review

The current development status of tennis in universities has three characteristics: low popularity of tennis in universities, insufficient tennis facilities in universities, and a lack of tennis cultural atmosphere, which have affected the promotion and development of tennis. Correspondingly, tennis teaching concepts and methods are outdated; Lack of continuity and comprehensiveness in tennis learning; There is a lack of tennis teachers in universities and their level of specialization is not high. Some scholars have investigated and found that the majority of students have a liking attitude towards tennis, with the main motivation being to exercise. The tennis curriculum arrangement in universities in Wenzhou is unreasonable. Some scholars have found that the competition teaching method can effectively improve students' ability to apply tennis techniques and tactics during the competition, improve their psychological quality, enhance their confidence, and promote their development in speed, agility, and muscle strength. Some scholars believe that as college athletes age, their social evaluation anxiety and competition preparation anxiety gradually decrease. However, their anxiety about injury gradually increases with age. The better the athletic performance, the lower the competition anxiety and failure anxiety, and the higher the social evaluation anxiety and injury anxiety [4]. Japanese scholars have conducted research on the impact of psychological factors on tennis matches. Believing that group cohesion and life skills are psychological factors that affect competitive ability. The study surveyed 373 college tennis players

and divided them into four categories: the first category (24.7%) was "high group cohesion and life skills"; Class 2 (31.0%) reported high group cohesion and low thinking ability, while Class 3 (17.9%) reported low group cohesion and communication ability; and the fourth category (26.4%) is "low group cohesion and life skills". Among college tennis players, there is a trend for top players to gather in "high group cohesion and life skills".

3. Research Object and Content

The purpose of this study is to observe the on-site performance of ordinary college tennis players in competitions, analyze the reasons that affect tennis players' performance from the perspective of sports training, and propose suggestions for improving teaching and training. The subject of this study is college athletes who participated in the Shaanxi Division of the Wilson China Dragon Amateur Tennis Team Tournament. The survey subjects are A, B, and C3 college athletes, and the research content is the on-site performance of the participants in key matches. Table 1 below shows the technical statistics of the three contestants during key competitions.

Table 1. Technical Statistics of Key Competitions for Players A, B, and C

	1st Serve	Double	Unforced Errors
A	71%	3	38
B	61%	5	51
C	63%	2	45

4 Results and Analysis

The event group theory categorizes tennis as a skill driven, net separated, and adversarial event [6]. Simply put, tennis is a technical activity. A college student who has good physical fitness but has not practiced tennis needs to draw a question mark whether they can play a skilled elementary school student. The depth and depth of tennis, whether to turn or not, fast or slow, and so on, make it difficult for beginners to take action. Therefore, the study starts with the event group theory in education and training. Analyze the factors that affect college tennis matches.

4.1 Competitors' Own Competitive Abilities and their Performance in Competitions

4.1.1 Competitive Ability

According to the degree of genetic influence, competitive ability can be divided into innate and acquired abilities, which can be specifically divided into physical ability, technical ability, psychological ability, tactical ability, and sports intelligence. The decisive factors in competition are technical ability, physical ability, and tactical ability. When the levels of both sides are equal, psychological ability and intelligence play a decisive role. After playing for 10 minutes in the game, player A's physical strength is weak, and his physical fitness declines. He makes significant mistakes in first serve and return shots, resulting in tactical failure. Therefore, physical training cannot be ignored. In addition, many people practice very well in daily life, and once a game is played, they lose their form. They cannot be impatient or irritable, and strengthen their psychological construction. There was a time in tennis history when it was popular to see who made fewer mistakes and played conservatively. However, careful analysis shows that there are also some advantages for beginners in tennis. In the 2012 Australian Open men's singles final, Djokovic and Nadal staged a nearly 6-hour historical battle, which posed a huge psychological and physical test for athletes.

Generally speaking, skills, tactics, and ordinary training or competition experience are directly proportional, that is, the more practice, the more matches, and the relatively better results. Self reflection, good at brainstorming, summarizing problems, and actively searching for their own problems are commendable practices for contestant B. College student contestants can "substitute competition for practice" in daily training and teaching, and should hold more similar teaching competitions; In the reality of teaching, due to the freedom of course selection, there are both

unfounded and well-established students in the class, resulting in a systematic and continuous interruption of tennis teaching. In addition, hardware limitations such as limited venues, limited class hours, and weather conditions have led to poor classroom teaching effectiveness.

In addition, players B and C can quickly replenish their physical strength by drinking foods such as glucose, salt drinks, or bananas during breaks in the competition.

4.1.2 Competition Performance

(1) Competitive and Training Status

The consistent and regular pattern of changes in the body's activity displayed on a 24-hour basis is called a biological rhythm. The widely existing rhythm enables organisms to better adapt to the external environment. The competitive state of the same athlete varies at different times, and even during their optimal stage, there may be different changes due to various internal or external factors. For example, on July 8, 2012, Federer defeated player Murray 3-1 in the men's singles at Wimbledon. However, on August 6, less than a month later, in the men's singles final at the Olympic Games, Federer lost 0-3 to Murray. On the one hand, this is the charm of competitive sports, On the other hand, this also indicates how difficult it is to maintain a high level of competitive form continuously. Some people have conducted statistics on the Olympics, World Championships, and World Cup competitions, and found that about 20% of athletes performed their highest performance in the competition, while 80% of people were below their usual best level. The performance of athletes A and B during the competition was not as good as their usual training performance. Obviously, successfully regulating and maintaining the optimal competitive state of athletes during the competition is a problem that needs to be considered and solved, such as controlling the amount of exercise reasonably before the competition, sorting out negative emotions and recalling the dominant driving force, maintaining appropriate mental tension, and adopting targeted psychological desensitization training for situations that affect the competition. Players A, B, and C all experience varying degrees of tension during the competition. In daily training, attention should also be paid to the construction of competition psychology, the cohesion of tennis training team strength, and the construction of tennis training fields.

Generally speaking, a positive psychological state can effectively improve the success rate of serving for college tennis practitioners. Targeted real-time training content should be developed for the psychological problems exhibited by college students during matches. At a certain level of tennis proficiency, there is a temporary pause or decline in the player's tennis learning or skills. On its growth curve, it appears to maintain a certain level without increasing or decreasing, but after breaking through the "plateau phenomenon", the growth curve of tennis players continues to rise. There are countless examples of this "plateau phenomenon" in real life, as the athlete's body and mind have adapted to the training intensity (or developed mental fatigue), and the same intensity cannot achieve the effect of stimulating muscles and nerves. Therefore, it is necessary to change and adjust training methods and methods, and develop new training plans.

(2) Competition conditions

In terms of venue, there were 160 tennis courts in Xi'an in 2006, 300 in Shenzhen in 2000, and 500 in Chengdu. In 1960, there were 452 tennis courts at the University of California alone in the United States. Compared to the same period in Xi'an, there were more locals and fewer matches, resulting in a serious shortage of courts. At this stage, it is necessary to improve the utilization rate of the courts and increase the efficiency of tennis courts. In terms of clubs, Xi'an is the largest city in the northwest and one of the 17 sub provincial cities in China. According to data from 2008, Qingdao has 160 tennis clubs, while Xi'an only has 14 tennis clubs. Xi'an's tennis clubs have great potential for development. In terms of teaching staff, there is a lack of tennis teachers in universities, and the degree of specialization is not high. The level of specialization of tennis teachers is not high, and many tennis teachers in universities have switched from other majors to tennis teachers, often self-taught. In addition, the heavy teaching tasks have affected the sustainable and high-level development of tennis.

(3) Event experience

A, B and C3 first-year college athletes, who had experience participating in competitions at or above the county level before the competition, have a psychological reserve that makes their athletic intelligence and tactics better reflected in the competition. In the later stage of training, similar activities such as "promoting practice through competition and combining competition with practice" still need to be increased.

4.2 Competitor's Competitive Ability and Performance in the Competition

The development of tennis in various regions is uneven. Chengdu, also a sub provincial city, has a better tennis development environment than Xi'an. In the competition for the Huanglong (Xi'an) division of the Wilson China Dragon National Amateur Tennis Team Tournament, teams from Shenzhen and Chengdu entered the top three. When asked why not compete in the Chengdu division, the answer was that Chengdu has more experts, and the probability of winning and qualifying in Xi'an is higher, It can be seen that tennis enthusiasts or tennis population in Xi'an want to have a certain influence in the national amateur tennis industry, and there is a long way to go.

4.3 Judgment Factors

Gambling and the influence of gambling groups on referees were controversial events at the 2012 Olympics. Amateur competitions may also be influenced by referees, whether they treat the competition fairly and objectively; The professional competence of the referee, that is, whether the referee's skills meet the requirements of the competition; A series of factors need to be considered, such as the equipment for tennis matches (monitoring system) and the level of event organization. In this game, the referee was relatively fair and impartial, but there were also practical factors such as the lack of linesmen and player interference. Disputes over the line or out of bounds should be resolved in accordance with the rules of the game.

5. Conclusion and Suggestions

The factors that affect the performance of amateur tennis players can be mainly divided into self factors, opponent factors, and referee factors. Among them, self factors are the main factors, including competitive ability, competition performance, competitive and training status, competition conditions, and event experience. Personal tennis competitive ability spirals up with active training, reflection, and practical improvement, while others are secondary factors. The current situation of tennis development in universities is that the popularity of tennis is low, the tennis facilities are insufficient, and there is a lack of tennis cultural atmosphere, which affects the promotion and development of tennis; College student athletes can "substitute competition for practice" in their daily training and teaching, attach importance to the construction of competition psychology, build a tennis training field, and form a tennis training team; In terms of teaching, there is a lack of continuity and comprehensiveness in tennis learning; In reality, due to the free selection of courses and the simultaneous presence of students with zero foundation and foundation in classes, the systematic and continuous interruption of tennis teaching has been caused. In addition, hardware limitations such as limited venues, limited class hours, and weather conditions have led to poor classroom teaching effectiveness, a lack of professional tennis teachers in universities, and a low level of specialization, Many tennis teachers in universities have switched from other majors to tennis teachers, resulting in self-study and heavy teaching tasks, which have affected the quality of tennis teaching.

It is recommended to adopt the concept of "replacing practice with competition" in daily training and teaching, attach importance to the construction of competition psychology, build a tennis training field, and form a tennis training team; In response to the lack of continuity in tennis learning and poor teaching effectiveness, attention should be paid to the training of tennis professional teachers and the increase in course hours.

References

- [1] Qiao Yanbin. The Current Situation, Problems, and Innovation Approaches of Tennis Teaching in Universities in the New Era [J]. Contemporary Sports Science and Technology, 2022, 12 (04):

157-161. DOI: 10.16655/j.cnki.2095-2813.2108-1579-4022.

- [2] Fan Xiangqian. Research on the Current Situation and Countermeasures of Tennis Development in Wenzhou Universities [D]. Wenzhou University, 2017.
- [3] Gong Xiaopeng, Li Yifeng. Research on the Application of Competition Teaching Method in Tennis Teaching for College Students [J]. Sports Goods and Technology, 2022 (16): 178-180.
- [4] Wei Xiaojia A Related Study on the Anxiety State of Tennis Players before Competition at Xi'an Institute of Physical Education [D]. Xi'an Institute of Physical Education, 2013.
- [5] Nozawa E, Otani T Classification of college tennis players based on group coherence and life skills: [J] The Japanese Journal of Coaching Studies, 2019, 32 (2).
- [6] Tian Maijiu. Sports Training [M]. Beijing: People's Sports Publishing House, May 4th, 2000. P456.
- [7] Zhang Bingxuan. Research on the Influence of Psychological Factors on the Success or Failure of Serves in Tennis Competitions [J]. Contemporary Sports Technology, 2021, 11 (22): 224-226. DOI: 10.16655/j.cnki.2095-2813.2012-1579-3269.
- [8] Li Zhen. Research on the Current Situation and Countermeasures of Amateur Tennis Sports in Xi'an [D]. Shaanxi Normal University, June 2009.
- [9] Wang Hui. Analysis of the Current Situation and Countermeasures for the Development of Amateur Tennis Tournaments in Tianjin [J]. Sports Boutique, 2019, 38 (10): 130+132.
- [10] Wang Ping. Analysis and Countermeasures of Psychological Factors Influencing Athletes in Tennis Competitions [J]. Contemporary Sports Technology, 2019, 9 (12): 199-200. DOI: 10.16655/j.cnki.2095-2813.2019.12.199.
- [11] Fu Qiang. Investigation and Research on the Psychological Factors Influencing College Student Athletes in the "Huaguang Cup" Tennis Competition in Henan Province [J]. Contemporary Sports Science and Technology, 2013, 3 (23): 18-19. DOI: 10.16655/j.cnki.2095-2813. 2013.077.