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COMPARISON, STATISTICS AND ANALYSIS OF THE TECHNIQUES USED IN TABLE TENNIS

Li Tie¹, itie_77@163.com, <https://orcid.org/0000-0003-4195-2828>

Wang Jun¹, zwhit@hit.edu.cn, <https://orcid.org/0000-0002-5676-6481>

V.S. Timofeev², yakuthd@mail.ru, <https://orcid.org/0009-0003-6422-5647>

Xiao Qi³, 19246258@qq.com, <https://orcid.org/0000-0003-0709-0996>

¹ Harbin Sport University, Harbin, China

² North-Eastern Federal University, Yakutsk, Russia

³ Hebei Environmental Engineering College, Qinhuangdao, China

Abstract: In our research, we chose 28 matches of two top table tennis players from China and analyzed the methods they used in each match. **Aim:** to offer practical suggestions for the development of the game of table tennis on statistics and analysis of players. **Materials and methods:** The paper adopted the documentary, video observation, mathematical and statistical and comparative analysis methods. **Results:** subjects were able to control their opponents in the winning game by combining short balls with semi-volleys or short balls with long backhand variations to increase their own chances of attacking and pulling back to open up the game and take the initiative. The research result was a detailed analysis and comparison of the two athletes' game, depending on the task and the technical features of the players' training. **Conclusions:** In conclusion, the authors share with their observations of the athletes' tactical style, depending on the results they showed during the game.

Keywords: Table tennis, technical analysis, comparative statistics, table tennis in China

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СРАВНИТЕЛЬНЫЙ, СТАТИСТИЧЕСКИЙ И ОПИСАТЕЛЬНЫЙ АНАЛИЗ ТЕХНИК, ИСПОЛЪЗУЕМЫХ В НАСТОЛЬНОМ ТЕННИСЕ

Ли Те¹, itie_77@163.com, <https://orcid.org/0000-0003-4195-2828>

Дзюнь Ванг¹, zwhit@hit.edu.cn, <https://orcid.org/0000-0002-5676-6481>

В.С. Тимофеев², yakuthd@mail.ru, <https://orcid.org/0009-0003-6422-5647>

Сяо Чи³, 19246258@qq.com, <https://orcid.org/0000-0003-0709-0996>

¹ Харбинский спортивный университет, Харбин, Китай

² Северо-Восточный федеральный университет, Якутск, Россия

³ Хэбэйский колледж экологической инженерии, Циньхуандао, Китай

Аннотация. Исследование представляет собой анализ статистики 28 матчей двух лучших игроков в настольный теннис из Китая и методов, которые они использовали в каждом матче. **Цель:** предложить практические рекомендации по улучшению игры в настольный теннис по данным игровой статистики и анализа действий игроков. **Материалы и методы.** В статье используют анализ документов и видеозаписей, а также методы математического, статистического и сравнительного анализа. **Результаты.** В выигранных матчах исследуемые игроки смогли контролировать своих противников, комбинируя короткие мячи с ударами с полулета или короткие мячи с вариациями

длинного удара закрытой ракеткой, чтобы увеличить свои собственные шансы атаковать и отступить для перехода к открытой игре и перехвата инициативы. Результатом исследования стал детальный анализ и сравнение игры двух спортсменов в зависимости от поставленной задачи и технических особенностей подготовки игроков. **Заключение.** Авторы представляют свои выводы о тактическом стиле спортсменов в зависимости от результатов, показанных ими в ходе игры.

Ключевые слова: настольный теннис, технический анализ, сравнительная статистика, настольный теннис в Китае

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The purpose of this study is a detailed analysis of the technical characteristics of the table tennis game of Chinese athletes.

Materials and methods. Literature method. In the database of China Knowledge Network, “table tennis” and “comparative analysis of tactics” were used as keywords to search for papers published in China between 2011 and 2019 [6–10]. The retrieved literature was integrated and analyzed to provide a theoretical basis for the writing of this paper. Video observation method. Video recordings of important matches of international and national tournaments in which Lin and Wang played against the best table tennis players in the world between 2018 and 2019 respectively were viewed, its a total of 28 matches [11, 13, 15]. The tactical characteristics they used in their matches are each visualized and analyzed. Tactics and drop-ins are counted and analyzed on this basis. Mathematical and statistical method. Excel software was utilized to analyses the three periods of the game between table tennis players Lin and Wang, which included the stealing on the serve, stealing on the receive and serve, and holding [12, 14]. At the same time, the tactical characteristics of the players were summarized, which provided the data to support this paper. Comparative Analysis Method [2, 3]. In this paper, Lin and Wang's win and loss matches against different opponents in different matches are used as the basis for comparison based on the three-stage statistical method. The similarities and differences between the tactical characteristics of Lin and Wang in their matches are observed in detail, as well as the patterns of tactical use, strengths and weaknesses [1, 4, 5].

Results and their discussion

1. Comparative analysis of the use of the drop shot between Lin and Wang

In the serving stage, Lin and Wang were able to control their opponents in the winning game

by combining short balls with semi-volleys or short balls with long backhand variations, which was effective overall. However, in the losing court, this advantage was not played out, with the majority of serve drop points being concentrated on short balls, which were too single and rigid, and the advantage in the winning court was greatly limited.

In the winning game, Lin is more inclined to serve short and then make a rush, mainly through the variation of serve, as a way to take the initiative on the court; while Wang is relatively more varied in terms of drop point, where serving long balls in the backhand position is very effective, both in holding the opponent's stance, so that the opponent dare not stray too close to the middle, always pay attention to the short forehand receive and serve, but also keep an eye on the backhand long ball sneak attack, which is very effective.

In the losing match, Lin's short serve was less effective than in the winning match, as he was pinned down by his opponent after serving short and pulling up the board, and did not play to his advantage. In the corresponding match on the losing court, Wang tried to control his opponent by serving short balls to take the initiative on the court, and his serves were all concentrated on the three drop points of the short balls, which had a low scoring rate. The opponent easily attacked the technical start of the board and the effect of the serve and grab did not look as good as it should have been.

In summary, Lin and Wang were able to control their opponents in the winning game by combining short balls with semi-volleys or short balls with long backhand variations to increase their own chances of attacking and pulling back to open up the game and take the initiative. The opponent was able to control the rhythm of the game by controlling the ball and attacking

on the table, which caused Lin and Wang to lose their rhythm and initiative.

Comparative analysis of the technical use characteristics of the Lin and Wang third boards. Wang is better than Lin in terms of control on the third board, while Lin is better in terms of grabbing the ball on the third board. Lin is able to attack aggressively after serving by pulling the ball with his forehand and backhand, and is faster at pressing the close table. For Wang, on the other hand, he is better at creating a threat to his opponents through a combination of control and stealing when stealing opportunities are poor, as shown in the data (Table 1).

In the winning game, Lin and Wang mainly attacked in the third board, with the combined usage rate of forehand, backhand and side pull exceeding 70 %. Wang's opponents were prone to misjudging the serve due to more variations in the serve, which resulted in many opportunity shots, however Wang's forehand pull had too much weight shift, resulting in more pulling errors. Lin's third backhand pull has obvious advantages. After serving, the backhand pull slash is of high quality and speed, which is a difficult point for the opponent to handle.

In the losing game, Lin and Wang also had the highest backhand pull usage, but the scoring rate dropped significantly. Lin was more confi-

dent in using the backhand pull than the forehand pull, and Lin used the backhand pull in the forehand position to attack, resulting in a low score on the forehand pull but a high usage rate, thus compromising the quality of the attack and causing a significant drop in the score. Wang's use of the forehand pull in the losing court is more reasonable, which is directly related to their different playing styles, as Lin is more confident in his use of backhand technique, while Wang's forehand ability is more prominent and he uses his side-stance more frequently, and is often able to achieve unexpected results through aggressive side-stance play when the opportunity allows (Fig. 1).

Based on the overall scoring rates of Lin's and Wang's third board skills in Fig. 1, it can be seen that Wang is better than Lin in terms of third board control, and Lin is better in terms of the corresponding third board steal. After serving, Lin was able to get the ball overhand with a backhand pull, keeping himself in position and pressing the near post to keep his opponent in check. Wang, on the other hand, is more adept at creating a threat to his opponents through a combination of control and attacking when his opponents are already retreating from the table in preparation for a counter-attack or defence, and is more likely to cause his opponents to lose their positions.

Table 1

Technical statistics for the third board

	Scores and losses	Swing	Chop	Twist	pick	Front hand pull	Backhand pull	Side pull	Total
Lin's Win	Score (points)	4	5	9	9	16	44	7	94
	Loss (points)	7	2	2	1	20	25	4	61
	Scoring rate (%)	36.36	71.43	81.82	90.00	44.44	63.77	63.64	60.65
	Utilization rate (%)	7.10	4.52	7.10	6.45	23.23	44.52	7.10	100.00
Wang's Win	Score (points)	5	3	4	9	15	37	10	83
	Loss (points)	1	0	1	2	16	22	8	50
	Scoring rate (%)	83.33	100.00	80.00	81.82	48.39	62.71	55.56	62.41
	Utilization rate (%)	4.51	2.26	3.76	8.27	23.31	44.36	13.53	100.00
Lin's Loss	Score (points)	4	3	3	10	16	31	0	67
	Loss (points)	3	2	7	9	7	28	1	57
	Scoring rate (%)	57.14	60.00	30.00	52.63	69.57	52.54	0.00	54.03
	Utilization rate (%)	5.65	4.03	8.06	15.32	18.55	47.58	0.81	100.00
Wang's Loss	Score (points)	11	2	1	4	14	26	7	65
	Loss (points)	7	0	3	5	10	29	7	61
	Scoring rate (%)	61.11	100.00	25.00	44.44	58.33	47.27	50.00	51.59
	Utilization rate (%)	14.29	1.59	3.17	7.14	19.05	43.65	11.11	100.00

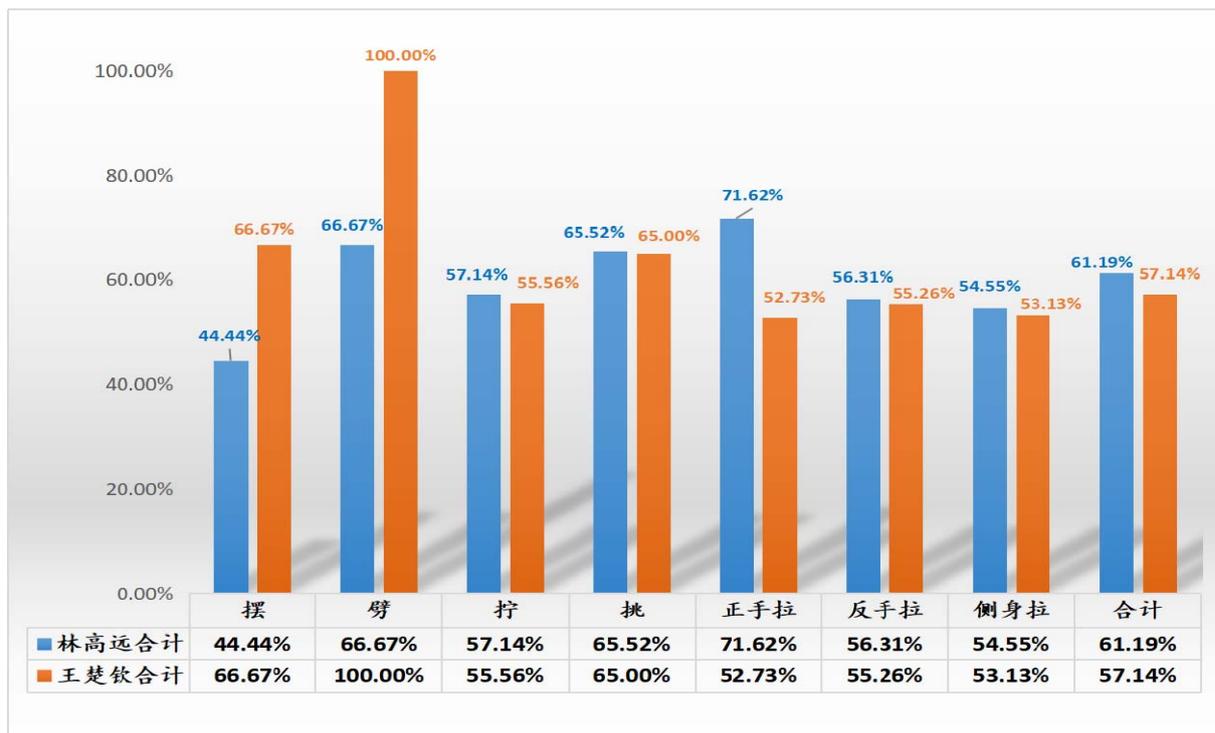


Fig. 1. Statistical graph of the combined scoring rate of Lin and Wang's winning and losing third board skills

2. Catch and grab stage. Comparative analysis of the characteristics of Lin's and Wang's technical use of receiving and serving

Lin is weaker in the receiving stage, with lower quality wringing and pulling, and is always in a passive position after receiving and stealing. Wang outperformed Lin in the receive and serve segment, and the use of backhand twisting and pulling technique was an important scoring tool for him to suppress his opponent in the receive and grab segment (Table 2).

In the match, Lin used mainly short and twisting techniques, with a combined usage rate of nearly 60%. However, the quality of twisting and pulling was low, and the landing point control was mostly on both sides of the middle line. Wang outperformed Lin in the receiving and serving rounds, especially in the twisting and pulling technique, with a usage rate of 27.60% and a high scoring rate. Wang's twisting and pulling technique is more threatening than Lin's, with more explosive power in the moment of strike and often twisting and pulling the opponent's serve in the forehand position to suppress the opponent.

In the losing match, the disadvantage of Lin's receiving and serving was evident, as his

opponent took advantage of the low quality of Lin's backhand twisting and pulling to increase the proportion of short balls. On the contrary, the overall situation of Wang's serve was better than Lin's, but in the losing court, the score rate of short swing dropped significantly compared to the winning court.

As can be seen from Fig. 2, Lin is weaker in the receiving part of the serve, as he pays too much attention to the short ball, which makes his judgement not accurate enough and makes more mistakes when he is barely on the ball. Therefore, the quality of twisting and pulling should be strengthened in training, as well as the top rate and quality of the forehand half-volley. Wang's backhand pulling technique is an important means to suppress the opponent in the receiving stage, and it can often disrupt the opponent's attacking rhythm by pulling up the short ball served at the forehand position, creating a good situation for his next attack. However, the quality of the backhand pull is low and easy to be pulled back by the opponent. It is necessary to further strengthen the quality of the backhand pull up, especially to keep an eye on the opponent to limit the accuracy of the judgement of the half-volley.

Table 2

Lin and Wang Winning and Losing Game Receiving and Serving Technique

	Scores and losses	Swing	Chop	Twist	Pick	Front hand pull	Backhand pull	Side pull	Total
Lin's Win	Score (points)	73	5	26	24	4	23	3	158
	Missing points (points)	61	6	28	28	5	17	2	147
	Scoring rate (%)	54.48	45.45	48.15	46.15	44.44	57.50	60.00	51.80
	Utilization rate (%)	43.93	3.61	17.70	17.05	2.95	13.11	1.64	100.00
Wang's Win	Score (points)	69	15	46	2	8	20	3	163
	Missing points (points)	56	17	39	2	5	25	1	145
	Scoring rate (%)	55.20	46.88	54.12	50.00	61.54	44.44	75.00	52.92
	Utilization rate (%)	40.58	10.39	27.60	1.30	4.22	14.61	1.30	100.00
Lin's Lose	Score (points)	30	4	47	5	3	14	0	103
	Missing points (points)	59	8	80	8	11	17	0	183
	Scoring rate (%)	33.71	33.33	37.01	38.46	21.43	45.16	0.00	36.01
	Utilization rate (%)	31.12	4.20	44.41	4.55	4.90	10.84	0.00	100.00
Wang's Lose	Score (points)	49	18	62	0	7	14	0	150
	Missing points (points)	95	17	58	1	2	27	2	202
	Scoring rate (%)	34.03	51.43	51.67	0.00	77.78	34.15	0.00	42.61
	Utilization rate (%)	40.9	9.94	34.09	0.28	2.56	11.65	0.57	100.00

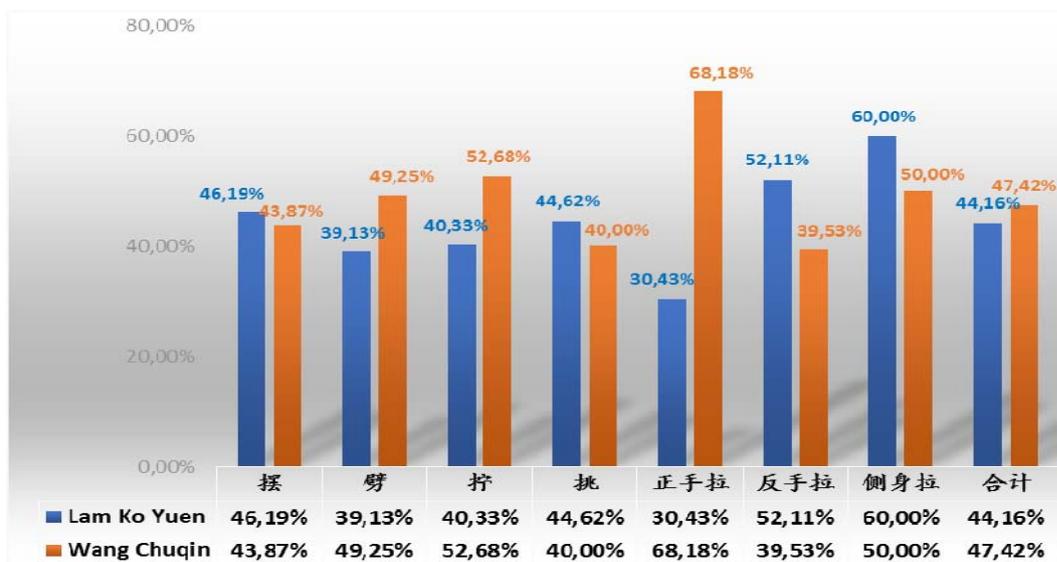


Fig. 2. Statistical graph of the combined scoring rate of Lin and Wang's winning and losing court receiving and serving skills

Comparative analysis of the characteristics of the use of the drop shot between Lin and Wang. In the winning game, the highest usage rate was 35.7 for Lin's backhand long ball, while the usage rates for Wang's backhand long ball and forehand short ball were close at 28.57 % and 27.60 % respectively, with the second highest usage rate for the forehand long ball. Combined with the video, it can be seen that Wang has a better control of the drop point of the serve, through the short swing to control the ball in the

opponent's forehand position, and combined with the backhand twisting and pulling to suppress the opponent's backhand position, the drop point of the serve is more spread out so that the opponent is always in the movement, and Wang's twisting and pulling is fast and explosive, the opponent can only respond through the way of defence, for their next attack to buy enough time. On the other hand, Lin's control of the drop point of the serve was single, mainly concentrated on the opponent's backhand position, the purpose of which

was to prevent the opponent from using his forehand to attack after the serve, but due to the low quality of the serve, the control of the drop point was sacrificed at the same time, the opponent had sufficient time to prepare, the opponent could easily seize the opportunity to counter-attack, and the scoring effect was not obvious.

In the losing game, Lin's percentage of receiving serves to the backhand long ball increased significantly, with a usage rate of 52.10 %, while the usage rate of the forehand short ball dropped to 20.63 % and the scoring rate was only 37.29 %. The opponent in the losing game had a clear intention to create a steal for his third board through a high quality serve. Lin could only further increase the use of the twisting and pulling technique when the short swing control was unsuccessful, which further exposed the weakness of his own poor quality twisting and pulling technique. In the losing match, Wang's use of the twisting and pulling technique still showed a good level, but the score rate of short balls from the receiving to the forehand position differed greatly from that in the winning match.

Comparative analysis of the technical use characteristics of the fourth panel of the Lin and Wang. Lin scores better than Wang on the fourth board and has a relatively more consistent ability to swing his forehand and backhand, while Wang scores more directly on the single board and has high quality shots, but is less able to recover (Table 3).

In the winning game, Lin's backhand usage rate increased, indicating that in the winning game, the improved quality of the opponent's return restricted Lin's backhand play. Moreover, the opponent's return was at a larger angle, mostly concentrated on Lin's backhand bottom line at a large angle, making Lin unable to find a favourable hitting position and timing after receiving the serve in the first place, resulting in more backhand errors. Wang's performance on the fourth board was weaker than Lin's, but many of the balls were twisted and pulled in the forehand position, resulting in large openings on the backhand and more backhands coming off the net on the fourth board.

In the losing game, Lin's fourth board technique was mainly backhand, with a backhand usage rate of 56.76 %, followed by a forehand usage rate, but the scoring rate of both was low, with more points conceded than scored, and the usage rate of the fourth board control was low, with the game being fast-paced and fierce and in most cases at a disadvantage in the losing game due to the weaker serve reception. Wang's forehand and backhand techniques on the fourth board had a higher usage rate, with a combined usage rate of nearly 90 %, but a scoring rate of only 32.14 % and 35.38 %, Wang did not have an advantage in the fourth board, and the advantage created by the serve and receive was greatly weakened. Therefore, Lin and Wang should strengthen their fourth board confrontation ability

Table 3

Technical statistics for the fourth board of Lin and Wang's winning and losing games

	Scores and losses	Forehand	Backhand	Side	Control	Total
Lin's Win	Score (points)	18	24	2	11	55
	Loss (points)	23	31	1	4	59
	Scoring rate (%)	50.00	42.86	66.67	55.56	48.25
	Utilization rate (%)	40.35	49.12	2.63	7.89	100
Wang's Win	Score (points)	20	24	4	4	52
	Loss (points)	27	36	4	1	68
	Scoring rate (%)	42.55	40.00	50.00	80.00	43.33
	Utilization rate (%)	39.17	50.00	6.67	4.17	100.00
Lin's Lose	Score (points)	13	22	2	0	37
	Loss (points)	29	41	2	2	74
	Scoring rate (%)	30.95	36.51	50.00	0.00	33.33
	Utilization rate (%)	37.84	56.76	3.60	1.80	100.00
Wang's Lose	Score (points)	18	23	2	5	48
	Loss (points)	38	42	3	6	89
	Scoring rate (%)	32.14	35.38	40.00	45.45	35.04
	Utilization rate (%)	40.88	47.45	3.65	8.03	100.00

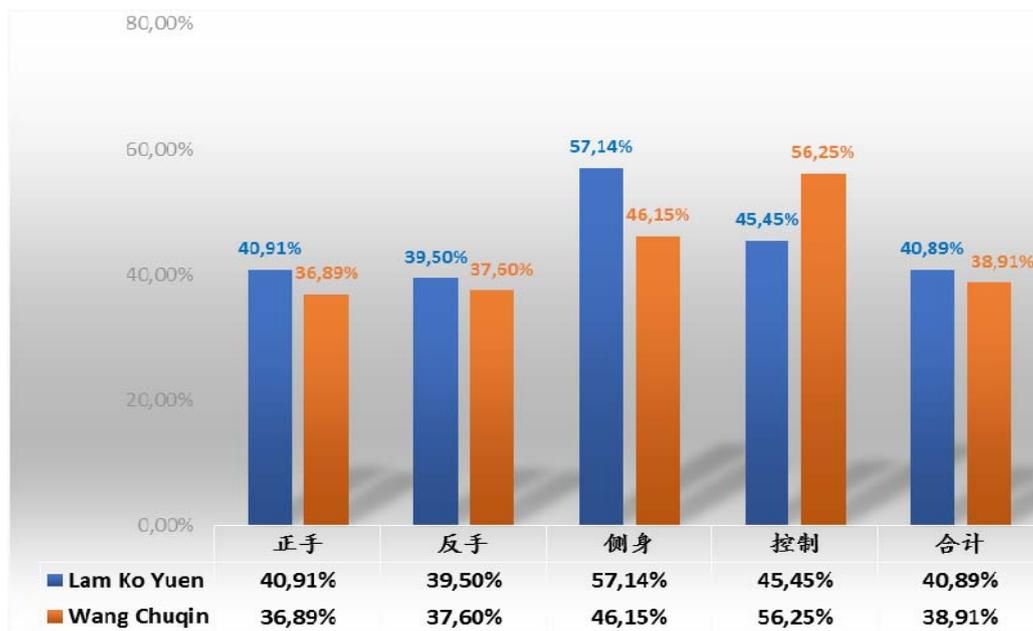


Fig. 3. Statistical chart comparing the combined scoring rate of Lin and Wang's fourth board technique

in future training to transform their current disadvantage on the fourth board in order to take the initiative in the match and improve their fourth board control accordingly to provide an effective guarantee for match victory.

According to the statistics in Fig. 3, the score rates of both Lin and Wang's forehand and backhand techniques did not exceed 50 % in the fourth board. Lin is unable to overpower his opponent due to the low quality of his receiving and serving, so he loses a lot of points on the fourth board; Wang is unable to regain his ability due to the fact that he often goes to the forehand position for twisting and pulling and his centre of gravity shifts too much, so he does not have enough time and space to hit the ball on the fourth board. However, a comparison of the two scores shows that Lin's scores on the fourth board are higher than Wang's on the forehand, backhand and side, and he is quicker to return after receiving and serving, and has a more stable ability to swing the forehand and backhand, which is an important aspect that Wang needs to strengthen and pay attention to in his future training.

3. Holding stage. Comparative analysis of the characteristics of the technical use of the fifth panel of Lin and Wang

Table 4 shows that in the winning game, Lin's fifth board technique was mainly based on using the backhand pull, with a usage rate of 56.90 %. The fifth board is mainly contested on

the backhand position, and the score rate of both the forehand and backhand is close to 50 %. After the hairpin, Lin reverts back to the position more quickly, and the third and fifth boards are connected more quickly, and he is more active in the hairpin. On the contrary, Wang used more than 90 % of his forehand and backhand together, and basically all of his fifth board was topspin, but his score rate did not reach 50 %, and after the third board, he was slow in preparing for the next board. In the losing game, Lin's forehand scoring rate dropped significantly compared to the winning game, indicating that Lin's forehand play was extremely unstable, especially when his opponent's forehand pulled the ball back to the forehand position, and Lin made more errors. Similarly, Wang's forehand and backhand scoring rate dropped significantly compared to the winning game. Although the quality of his opponent's return was not particularly high, Wang was at a greater disadvantage on the fifth board as he was less able to prepare for the next attack after a steal. Therefore, Lin should strengthen his ability to hold his forehand on the fifth board, while Wang should strengthen his ability to recover quickly after the attack and ensure the quality of his third board shots while.

According to the data in Table 5, in the winning court, Lin and Wang's sixth board technique mainly uses the forehand and backhand, with the usage rate close to 90 %. The sixth board is a very

Table 4

Technical statistics for the fifth board of Lin and Wang's winning and losing games

	Scores and losses	Front hand pull	Backhand pull	Side pull	Control	Total
Lin's Win	Score (points)	9	15	3	1	28
	Missing points (points)	9	18	2	1	30
	Scoring rate (%)	50.00	45.45	60.00	50.00	48.28
	Utilization rate (%)	31.03	56.9	8.62	3.45	100.00
Wang's Win	Score (points)	13	16	5	0	34
	Missing points (points)	21	18	1	0	40
	Scoring rate (%)	38.24	47.06	100.00	0.00	45.95
	Utilization rate (%)	45.95	45.95	8.11	0.00	100.00
Lin's Loss	Score (points)	9	24	2	0	35
	Missing points (points)	21	22	1	1	45
	Scoring rate (%)	30.00	52.17	66.67	0.00	43.75
	Utilization rate (%)	37.5	57.5	3.75	1.25	100
Wang's Loss	Score (points)	7	16	2	2	26
	Missing points (points)	29	29	9	3	71
	Scoring rate (%)	19.44	35.56	18.18	40.00	27.84
	Utilization rate (%)	37.11	46.39	11.34	5.15	100.00

important board in the holding stage, and it is vital to handle this board well, as playing with an advantage in this board can give you an active advantage in the next hold. In the topspin attack, Lin's fourth board was not of high quality, which caused Lin's backhand to be passive on the sixth board. In the sixth board, Wang's backhand was at a disadvantage, losing more points and being significantly weaker than his opponent in terms of speed. Similarly, in the losing game, the high usage rate of the forehand and backhand and the huge difference in scoring rate made the disadvantage of Lin and Wang on the sixth board even more obvious. It is recommended that Lin and Wang should give full play to their strengths in the first three boards, try to control the tempo of the game, reduce the confrontation with their opponents in the holding stage, make up for their shortcomings in the holding stage in regular training, and combine training with matches to strengthen their short board skills so that they can be more proactive in the game and not be caught by their opponents.

Comparative analysis of the characteristics of the technical use of the seventh and subsequent boards of Lin and Wang. In the winning game, Lin's forehand and backhand scored at a higher rate of over 60 %, saying that Lin was in a dominant position in the seventh board and in the confrontation after the seventh board. Wang's forehand and backhand use was more balanced, but his forehand pull scored less than 50 % of the points, with a usage rate of 51.11 %, indicating that Wang was at a disadvantage in

the seventh board and in the hold after the seventh board.

In the losing game, Lin's backhand, his dominant technique, was used at over 50 %, but the score rate was only 39.39 %, and the score rate of the forehand was only 22.22 %. The points lost on the seventh board in the losing game were much higher than the points scored, and this situation deserves high attention. Lin's poor control of the landing point on the previous board did not open up the landing point, and his opponent took the opportunity to pull the forehand to impact the backhand position, leading to an increase in the number of points lost on the backhand, and in the face of continuous forehand pulling against each other, the forehand did not have enough killing power and often missed before the opponent. Similarly, Wang's disadvantage was more apparent on the seventh board. The slightly higher scoring rate of the side-stroke technique made up for the lower scoring backhand technique, but due to the high use of the backhand, the scoring rate was only 34.15 %, and the continuous holding ability was slightly lacking, the movement was often out of place and the footwork still needed to be strengthened. Wang's forehand is inferior to his opponent's in terms of quality and landing point when playing topspin against each other. Therefore, Lin and Wang should reduce the amount of tangling with their opponents in the latter part of the holding phase, improve their footwork, increase the killing power of their forehands and backhands, and try to take the initiative in the attacking phase. In addition, Wang can seize

Table 5

Technical statistics for the sixth board of Lin and Wang's winning and losing games

	Scores and losses	Front hand pull	Backhand pull	Side pull	Control	Total
Lin's Win	Score (points)	22	16	1	1	40
	Missing points (points)	14	26	1	1	42
	Scoring rate (%)	61.11	38.10	50.00	50.00	48.78
	Utilization rate (%)	43.90	51.22	2.44	2.44	100.00
Wang's Win	Score (points)	14	13	6	0	33
	Missing points (points)	23	21	3	1	48
	Scoring rate (%)	37.84	38.24	66.67	0.00	40.74
	Utilization rate (%)	45.68	41.98	11.11	1.23	100.00
Lin's Loss	Score (points)	3	15	0	0	18
	Missing points (points)	20	34	0	1	55
	Scoring rate (%)	13.04	30.61	0.00	0.00	24.66
	Utilization rate (%)	31.51	67.12	0.00	1.37	100.00
Wang's Loss	Score (points)	8	20	6	0	34
	Missing points (points)	31	32	11	1	75
	Scoring rate (%)	20.51	38.46	35.29	0.00	31.19
	Utilization rate (%)	35.78	47.71	15.60	0.92	100.00



Fig. 4. Statistical chart comparing the technical scoring rate of Lin and Wang on the seventh board and after seven boards

the opportunity to increase the use of side-stance techniques in the holding phase and try to play to his strengths as much as possible.

According to the data in Fig. 4, in today's table tennis, it is no longer the case that the forehand wins the game, so the percentage of backhand holds is gradually increasing. The overall score rate for both Lin and Wang's backhands did not exceed 50 %, which shows that Lin's ability

to hold on the seventh board was better than Wang's. For the forehand, Lin's overall score rate was 53.33 % compared to Wang's 41.07 %, which combined with the corresponding data for the winning and losing games in the above table shows that Lin was able to bring his forehand into full play in the winning game, while in the losing game, due to the quality of his opponent's return, his forehand was less able to resist pres-

sure and lost the ball. In the losing games, due to the higher quality of the opponent's return, the forehand is less resistant to pressure and the errors increase considerably. Wang's advantage is that he has a higher scoring rate on the last board sideways and is able to seize the opportunity for a sideways fight. It is recommended that Lin and Wang should strengthen their ability to hold the forehand and backhand in the holding stage, improve the quality of their forehand and backhand shots, and pay attention to controlling the landing point to increase their competitiveness; in matches, they should use active overhand attacks in the serving and receiving stages as much as possible to extend their advantage on the court and lock in a win.

Conclusion. In the winning game, Lin and Wang were able to restrain their opponents by combining short balls with semi-volleys or short balls with long backhands, and their overall effect was good. In the negative court, Lin's short balls are less effective than those in the winning court. Wang's use of the long ball to serve is significantly less effective in restricting his opponent than in the winning court. In the catch-and-attack leg of the game, Lin's catching and serving was weaker and his twisting and pulling was of lower quality. In the holding stage, Lin outperformed Wang and Lin's forehand and backhand were stronger in the holding. However, the killing power of Lin's veneer is weaker, while Wang's veneer is of higher quality than Lin's.

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Information about the authors

Li Tie, Associate Professor, College of Physical Education and training Harbin Sport University, Harbin, Heilongjiang Province, China.

Wang Jun, Associate Professor college of Physical Education and training Harbin Sport University, Harbin, Heilongjiang Province, China.

Vladislav S. Timofeyev, Senior Lecturer, Department of Physical Education, North-Eastern Federal University, Yakutsk, Russia.

Xiao Qi, Professor Department of Physical Education Hebei University of Environmental Engineering, Qinhuangdao, Hebei Province, China.

Информация об авторах

Ли Те, доцент, Колледж физического воспитания и спортивной тренировки, Харбинский спортивный университет, Харбин, провинция Хэйлунцзян, Китай.

Ванг Дзюн, доцент, Колледж физического воспитания и спортивной тренировки, Харбинский спортивный университет, Харбин, провинция Хэйлунцзян, Китай.

Тимофеев Владислав Софронович, старший преподаватель, кафедра физического воспитания, Северо-Восточный федеральный университет им. М.К. Аммосова, Якутск, Россия.

Сяо Чи, профессор, кафедра физического воспитания, Хэбэйский колледж экологической инженерии, Циньхуандао, провинция Хэбэй, Китай.

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