

Team and Social Cohesion as Determinants of Game Performance Among Team Sport-Athletes: A Diagnostic Research Design

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Abstract

Low game performance persists globally. The significant contributions of team and social cohesion to the game performance of team-sport athletes were examined. Using a diagnostic research design, data were collected from 160 respondents selected through complete enumeration. Through multiple linear regression, it was found that both forms of cohesion significantly influence the criterion, fully supporting Social Identity Theory. Future studies may examine additional factors to explain the remaining variance of game performance and consider using qualitative methods to identify new variables. Coaches and school leaders may create programs that strengthen team and social cohesion, with possible reallocation of resources to team cohesion to optimize the performance of team-sport athletes.

Keywords: Team and social cohesion, determinants of game performance, team sport-athletes, diagnostic research design

Introduction

Low game performance among athletes is a global concern linked to multiple interrelated factors, including psychological stress, training disruptions, academic demands, and reduced well-being. Low game performance is demonstrated by team-sport athletes with low interaction and low skill sets within their team, compared with others (Didymus et al., 2017). Furthermore, teams most likely performed poorly across all team-sport competitions (Muthiane et al., 2015).

In the United States and Europe, low game performance was observed every season (Garcia et al., 2022). Similarly, the United Nations (2005) noted that student athletes performed poorly in sports. According to Chen et al. (2022), China has shown a significant decline in game performance and has yet to reach the level anticipated by the Chinese, and is even further below the world average.

Meanwhile, in the Philippines, Medina et al. (2024) found that the players' performance during games is low. Manalo and De la Cruz (2000) conducted a study on the factors affecting the performance of varsity players of the Technological Institute of the Philippines, and the findings revealed that players' game performance was low. Moreover, student-athletes preparing for major high school and collegiate sports leagues, such as the University Athletic Association of the Philippines (UAAP) and the National Collegiate Athletic Association (NCAA), experienced a significant decline in game performance as the cancellation of tournaments disrupted their training routines and competitive readiness (Espina, 2021).

Despite the recognized importance of teamwork in sports, few studies have examined how team and social cohesion specifically influence game performance among team-sport athletes. If this problem is not addressed, coaches and educators may fail to implement strategies that strengthen cohesion, potentially

leading to poor teamwork and suboptimal athletic performance. This study is therefore urgent in providing empirical evidence on the role of cohesion in enhancing game performance and guiding future training and team development programs.

Significance of the Study

The study on success, anchored on Sustainable Development Goal 4 (Quality Education), ensures the holistic student development and promotes lifelong learning skills. The findings may highlight the fostering of a positive sports culture and the value of collaboration, peer support, and trust by examining how team and social cohesion influence the performance of tertiary-level team-sport athletes. The study also envisions the institution's core values, which underscore its commitment to providing excellent, high-quality education.

Statement of the Problem

This study examined the significance of team cohesion and social cohesion as factors in the game performance of team-sport athletes. Specifically, it aimed to achieve the following objectives:

1. To determine the levels of team cohesion in terms of commitment to training, shared work ethic, role clarity, skill development support, adaptability, and communication in drills; social cohesion in terms of trust, respect, friendship, inclusion, acceptance, and shared identity; and game performance in terms of physical, technical, tactical, psychological, team dynamics, and measurable outcomes of team sports-athletes;
2. To determine the significance of the correlation between team cohesion and social cohesion, and the game performance of team sports athletes.
3. To determine the significance of the distinct and combined influence of team cohesion and social cohesion on the game performance of team sports athletes.

Hypotheses:

H01: Team cohesion and social cohesion do not significantly correlate with game performance.

H02: Team cohesion and social cohesion individually do not significantly influence game performance.

H03: Team and social cohesion collectively do not significantly influence game performance.

Theoretical/Conceptual Framework

This study is anchored on Social Identity Theory by Henri Tajfel (1978). It posits that a person's self-concept is derived from their group memberships, leading to personal and social identities that influence their behavior and self-esteem.

In the study, team cohesion refers to the personal identity described in the theory. It is indicated by commitment to training, shared work ethic, role clarity, skill development support, and communication skills by Carron et al. (2000). Social cohesion stands for social identity as affirmed in the theory, and this is indicated by trust, respect, friendship, inclusion, acceptance, and shared identity by Claridge (2020). Finally, game performance reflects behavior and self-esteem, as specified in the theory, and is indicated by physical, technical, tactical, and psychological performance, team dynamics, and measurable outcomes (Carron et al., 2002).

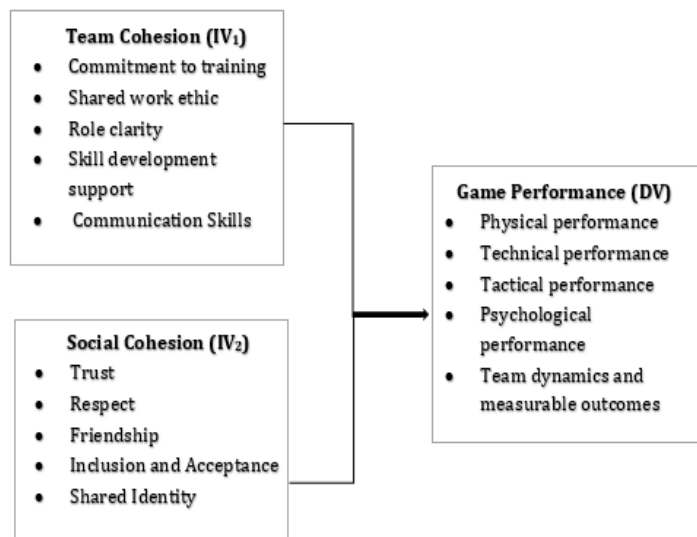


Figure 1. Conceptual Framework of the Study

Methodology

This chapter includes the research design, study locale, sample, and sampling techniques, data-gathering techniques, data analysis techniques, and ethical considerations.

Research Design

The study employed a diagnostic research design. It focuses on identifying the causes of a specific problem or phenomenon. It aimed to understand the underlying cause of a specific topic or phenomenon, usually an area of improvement, and find the most effective solution. In simpler terms, a researcher seeks an accurate diagnosis of a problem and identifies a solution (Singh 2023).

Locale of the Study

This study was conducted in a major urban center in Mindanao known for its diverse student population and expanding network of public and private educational institutions. This study covered secondary public school team-sport athletes within the city due to their relevance to the study. This selection is believed to enhance the validity of the research and allow for the collection of meaningful and relevant data.

Sample and Sampling Technique

The respondents of this study comprised one hundred sixty (160) team sports-athletes in secondary public schools at the official level, officially enrolled for the academic year 2025-2026 from three large schools and two medium schools. To ensure that all eligible respondents were included, a complete enumeration was utilized, which, as stated by Moustakas (2023), involves selecting every member of the defined population to meet the predetermined sample size.

Data Gathering Technique

The study used an online survey to collect data. Specifically, it utilized the three adapted and modified survey questionnaires: Youth Sport Environment Questionnaire (YSEQ) adapted from Carron et al. (1985), which obtained a Cronbach's alpha of 0.811; the Group Environment Questionnaire (GEQ) adapted from Alvarez et al (2025), which obtained a Cronbach's alpha of 0.771; and the Game Performance Assessment Instrument borrowed from Oslin et al. (1998), which obtained a Cronbach's alpha of 0.820. All these questionnaires had 15 items each.

The quality and validity of the instrument were ensured through the validation of Physical Education and research specialists. A pilot test was then conducted on thirty (30) respondents who were not part of the actual respondents to determine the clarity and reliability of the items used. The responses from the pilot test were analyzed, and all items included achieved a Cronbach's alpha of more than 0.70, the threshold for reliability, indicating that the three tools are reliable.

Data Analysis Technique

For the variable levels, descriptive, correlation, and multiple linear regression analyses were employed. Descriptive analysis summarizes and organizes data to clearly show its main features, such as patterns and averages. It is used in the early stages of a study to understand the data, and its advantages include simplifying complex information, making results easy to interpret, and providing a basis for further analysis. It utilized the mean and standard deviation as statistical treatment.

Furthermore, correlation analysis is a statistical method used to measure the strength and direction of the relationship between two variables. It is used when researchers want to determine whether variables are associated without implying causation, and its advantages include identifying relationships, guiding analysis, and helping in making informed predictions. Pearson's *r* correlation was used as the statistical treatment.

Lastly, multiple linear regression analysis is a statistical method used to examine how two or more independent variables collectively influence a single dependent variable. It is used when researchers want to analyze and predict outcomes based on multiple factors, and its advantages include identifying the relative impact of each variable, improving prediction accuracy, and controlling for other influencing factors. The unstandardized beta coefficient was used as a statistical treatment.

Below is the basis for interpreting the descriptive level of the variables:

Scale	Level	Team Cohesion	Social Cohesion	Game Performance
1.00 – 1.74	Very Low	Very Poor	Very Poor	Very Poor
1.75 – 2.49	Low	Poor	Poor	Poor
2.50 – 3.74	High	Good	Good	Good
3.75 – 4.00	Very High	Very good	Very good	Very good

For the interpretation of standard deviation, the following percentage standards by Sergeant et al. (2024) were followed:

% of Scores Covered: Interpretation Basis

≈ 68 %Scores are highly consistent

≈ 95 %Scores are moderately dispersed

≈ 99.7 %Scores are highly dispersed

For the interpretation scale of r – value, the following scheme, as proposed by Guilford (1956), was used:

Computed r	Descriptive Interpretation
+/- 1.00	Perfect Correlation
Between +/- 0.75 - +/- 0.99	High Correlation
Between +/- 0.51 - +/- 0.74	Moderately High Correlation
Between +/- 0.31 - +/- 0.50	Moderately Low Correlation
Between +/- 0.01 - +/- 0.30	Low Correlation
0.00	No Correlation

In terms of the Scale of Beta (β) Coefficient Strength, the following scheme, as proposed by Cohen (1988) and Hair et al. (2019), was used.

β Value Range	Influence of Relationship
$\pm 0.00 - \pm 0.09$	Very Weak
$\pm 0.10 - \pm 0.29$	Weak
$\pm 0.30 - \pm 0.49$	Moderate
$\pm 0.50 - \pm 0.69$	Strong
± 0.70 and above	Very Strong

Ethical Considerations

In this study, ethical standards in conducting research involving students were strictly observed. Participation was voluntary, and informed consent and assent were obtained to uphold ethical standards, including confidentiality and participant welfare, and to represent team sport-athletes across the division accurately. The research instruments underwent validation and reliability testing to guarantee the accuracy and trustworthiness of the findings. Permission from the Department of Education was formally secured to conduct the study within public schools under its jurisdiction. Moreover, the research proposal was reviewed and approved by the Society of Moral Integrity and Legal Ethics (SMILE) to ensure adherence to ethical, legal, and moral research principles.

Results

Included in this chapter are the descriptive, correlation, regression presentation, and the corresponding analysis and interpretation of the statistical results. The chapter is ended with the summary of findings.

Descriptive Results

Shown in Table 1 are the descriptive statistical results of the study including the variables namely team cohesion, social cohesion and game performance with their respective indicators. The sample number size, standard deviation, mean and descriptive level specifically corresponding with each of the variables are found in the table.

Table 1: Descriptive Statistics (n = 160)

Variables	Standard Deviation	Mean	Descriptive Level
Team Cohesion	0.31	3.35	High
<i>Commitment to Training</i>	<i>0.43</i>	<i>3.29</i>	<i>High</i>
<i>Share Work Ethic</i>	<i>0.53</i>	<i>3.21</i>	<i>High</i>
<i>Role Clarity</i>	<i>0.40</i>	<i>3.43</i>	<i>High</i>
<i>Skill Development Support</i>	<i>0.49</i>	<i>3.30</i>	<i>High</i>
<i>Adaptability and Communication in Drills</i>	<i>0.39</i>	<i>3.53</i>	<i>High</i>
Social Cohesion	0.31	3.41	High
<i>Trust</i>	<i>0.49</i>	<i>3.25</i>	<i>High</i>
<i>Respect</i>	<i>0.39</i>	<i>3.54</i>	<i>High</i>
<i>Friendship</i>	<i>0.42</i>	<i>3.35</i>	<i>High</i>
<i>Inclusion</i>	<i>0.37</i>	<i>3.45</i>	<i>High</i>
<i>Acceptance and Shared Identity</i>	<i>0.46</i>	<i>3.46</i>	<i>High</i>
Game Performance	0.35	3.37	High
<i>Physical</i>	<i>0.58</i>	<i>3.30</i>	<i>High</i>
<i>Technical</i>	<i>0.40</i>	<i>3.42</i>	<i>High</i>
<i>Tactical</i>	<i>0.43</i>	<i>3.38</i>	<i>High</i>
<i>Psychological</i>	<i>0.43</i>	<i>3.45</i>	<i>High</i>
<i>Team Dynamics and Measurable Outcomes</i>	<i>0.46</i>	<i>3.31</i>	<i>High</i>

Specifically, the table shows the Team Cohesion variable obtained a mean 3.35, described as high level. It is suggesting that the respondents experiencing good team cohesion. All indicators were described as high. The standard deviation of 0.31 denotes that the respondents' perceptions regarding team cohesion is highly consistent. Furthermore, Social Cohesion variable obtained a mean of 3.41, demonstrating high level. It indicates that the respondents experiencing good social cohesion. All indicators were described as high. The standard deviation of 0.31 denotes that the respondents' perceptions regarding social cohesion is highly consistent. Finally, Game performance variable obtained a mean of 3.37, described as high level. It indicates that the game performance of the respondents is good. All indicators were described as high. The standard deviation of 0.35 denotes that the respondents' perceptions regarding team cohesion are highly consistent.

Finally, team cohesion, social cohesion, and game performance are all interpreted at a high level, indicating that respondents generally experience strong group unity and effective performance. Compared to the others, social cohesion appears slightly more pronounced, while team cohesion and game performance show similarly strong but marginally lower interpretations.

Correlation Results

Presented in Table 2 is Correlation Table. It contains the determinant variables and criterion variables. Likewise, the R-value, p-value, decision on null hypothesis and interpretation are presented.

Table 2: Correlation Table ($n=160$)

Variables	Game Performance			
	R-value	p-value	Decision on H_0	Interpretation
Team Cohesion	0.86	<.001	Reject H_0	High Positive Significant Correlation
Social Cohesion	0.62	<.001	Reject H_0	Moderately High Positive, Significant Correlation

Level of Significance: 0.05

Decision Rule: Reject H_0 if $p < 0.05$

Specifically, the table shows the correlation between Team cohesion and game performance obtained a p-value of 0.001, which is less than the 0.05 level of significance. Hence, the null hypothesis was rejected. It indicates that team cohesion has significant relationship with game performance. The corresponding r-value of 0.86 indicates a high correlation. It implies that when team cohesion changes, there is a corresponding change in game performance. Similarly, social cohesion a p-value 0.001, which is less than the 0.05 level of significance. Hence, the null hypothesis was rejected. It indicates that the correlation is significant. The corresponding R-value of 0.62 indicates a moderately high positive. It implies that teams with stronger social bonds among members tend to perform better in games.

In summary, both team cohesion and social cohesion show positive relationships with game performance, indicating that stronger cohesion is associated with better outcomes. However, team cohesion demonstrates a stronger relationship compared to social cohesion, suggesting it has a more pronounced influence on performance.

Regression Results

Presented in Table 3 are the independent variables, team cohesion and social cohesion, and the criterion variable, game performance. The standardized and unstandardized regression coefficients, together with the corresponding p-values, hypothesis test decisions, and interpretations, are shown.

Table 3: Regression Table ($n=160$)

Game Performance							
	Unstandardized Coefficients		Standardized Coefficients				
Variables	B	Std. Error	Beta	t	Sig.	Decision on H ₀	Interpretation
(Constant)	0.38	0.15	-	2.51	0.013	-	-
Team Cohesion	0.79	0.04	0.72	18.16	<.001	Reject	Positive Significant Influence
Social Cohesion	0.32	0.04	0.27	7.14	<.001	Reject	Positive Significant Influence

$R = 0.89$ | $R^2 = 0.80$ | $F = 323$ | $p = <.001$

Level of Significance: 0.05

Decision Rule: Reject H_0 if $p < 0.05$

Specifically, the influence of team cohesion obtained an estimate $\beta = 0.72$, which indicates very strong contribution on the criterion. The corresponding p-value of <0.001 which is less than the 0.05 level of significance; therefore, the null hypothesis was rejected. This indicates that team cohesion significantly influences game performance. This implies that enhancing team cohesion significantly improve game performance. Moreover, the influence of social cohesion obtained an estimate $\beta = 0.27$, which indicates weak contribution on the criterion. The corresponding p-value of <0.001 which is less than the 0.05 level of significance; therefore, the null hypothesis was rejected. This indicates that social cohesion significantly influences game performance. This implies that despite weak influence, change in social cohesion, is also a change in game performance.

The regression analysis indicates that the combined variables significantly explained variations in game performance obtained an R^2 value of 0.80, and a p-value <0.001 , suggesting very strong influence in the criterion.

Summary of Findings

Based on statistical results, it specifically was found that:

1. Team Cohesion and Social Cohesion significantly correlate with Game Performance among team sports-athletes.
2. Team Cohesion and Social Cohesion individually has significant influence on Game Performance among team sports-athletes.
3. Team Cohesion and Social Cohesion collectively has strong significant influence on Game Performance among team sports-athletes.

Discussions

In this chapter, the findings are discussed. The conclusion and recommendations are also presented.

Team and Social Cohesion Significantly Correlate with Game Performance

The present study finds that team and social cohesion significantly correlate with game performance. This study's findings support the idea that athletes with higher levels of cohesiveness demonstrate better mental skills, stress management, and performance under pressure, all of which correlate with game performance (Muñoz et al., 2023). This finding agrees with Chan et al. (2024), who reported that higher task and social cohesion are associated with increased participation and active engagement, and that these factors are more likely to predict effective game performance.

The current study contradicts Moustakas et al. (2023), which states that while both cohesions engage participation, they are not always directly linked to performance outcomes and are inconsistently defined and measured in sport contexts.

Team and Social Cohesion: Significant Influence on Game Performance

The study's findings indicate that team and social cohesion significantly influence game performance. This study affirms the idea of Papp et al. (2025), emphasizing that team-related psychological variables, including task and social cohesion, are key contributors to competitive and consistent game performance, specifically showing that they are significant factors not only for skill-based performance but also for positively influencing socially driven athletes. Moreover, this study confirms the claim that athletes

with shared effort or task-oriented unity, and social interaction, respect, and trust were perceived as a positive influence on team game performance (Kresina, 2024).

However, this finding contradicts Kwon (2024), who stated that there is no significant relationship between cohesion and performance, and several included experiments showed improvements in cohesion without direct improvements in game performance, leading the cohesion–performance link to be described as inconsistent across sports and contexts. It means that even when cohesion increases, it does not always translate into better game performance.

Collective Strong Influence of Team and Social Cohesion on Game Performance

The study's findings indicate that team and social cohesion collectively have a strong, significant influence on game performance. This study corroborates Wolf et al. (2025), who argue that athletes in environments characterized by strong levels of both social and task cohesion demonstrate greater psychological readiness, which, in turn, leads to improved game performance. Additionally, this study supports Grossman et al.'s (2022) claim that team cohesion has a significant positive relationship with performance outcomes, with both types of cohesion contributing to improved team effectiveness and competitive success.

Conversely, this study contradicts Deepak (2025), who reported the drawbacks of excessive cohesion. Excessive task and social cohesion can result in an overemphasis on camaraderie at the expense of tactical discipline and resistance to change, making teams less adaptable under pressure. Both cohesions are not universally beneficial, noting that too much bonding can reduce competitiveness and innovation.

Conclusion

Based on the findings, it is concluded that, individually and collectively, team and social cohesions have a significant influence on game performance, with team cohesion exerting a stronger influence. Social Identity theory, positing that a person's self-concept is derived from their group memberships, leading to a personal identity and a social identity that influence their behavior and self-esteem, was affirmed.

Recommendations

Based on the conclusion, future studies may examine additional factors to explain the remaining 20% of game performance and consider using qualitative methods to identify new variables. Coaches and school leaders may create programs that strengthen team and social cohesion, with possible reallocation of resources to support improved performance.

Acknowledgements

First and foremost, I offer my profound gratitude to God Almighty for His divine guidance, wisdom, strength, and countless blessings throughout the completion of this study. His grace and unwavering presence have sustained me during the challenges and triumphs of my graduate school journey, making this achievement possible.

I would also like to extend my sincerest appreciation to my family especially to my Papa Jessie, for repeating the phrase “Kaya nimo na” and for their unconditional encouragement, and steadfast support. Their understanding, and belief in my capabilities have been a constant source of inspiration and motivation throughout my academic endeavours.

My heartfelt thanks are likewise given to my friends, Kenn, Russel and Austin. Some people are born family, and some become family. Thank you for being the siblings life gave me through friendship. For my colleagues in graduate school, Mylene, John Michael, Angel and Joy for their camaraderie, encouragement, and shared experiences. Their support, insightful discussions, and words of motivation contributed greatly in making this journey more meaningful and manageable. You guys made this journey more bearable.

My heartfelt thanks to our PSDS, Sir Bobby Alicaya, to my dearest school head Ma'am Ruth A. Rufano, and dear colleagues for your guidance, support, and encouragement. Your kindness, and dedication have inspired me to keep striving and growing. I truly appreciate all the help, understanding you have shared along the way. Thank you for being part of my journey and for creating an environment where learning, service, and friendship continue to flourish.

Above all, I would like to acknowledge myself for the perseverance, determination, grit, and unwavering commitment I dedicated to completing this study. Despite the challenges, pressures, and sacrifices encountered along the way, I remained resilient and focused on achieving this goal, making this accomplishment a reflection of hard work, self-discipline, and personal growth. I'm proud of myself for continuing to move forward quietly, even when everyone else seems busy living their own happy lives. While others celebrate different moments, I chose to focus on my studies, my growth, and my future. It hasn't always been easy, and sometimes it felt lonely, but I stayed committed. Thank you, self, for not giving up, for staying disciplined, and for believing that all this hard work will someday be worth it.

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Appendix A. Survey Questionnaire

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4-Strongly Agree

3-Agree

2-Disagree

1-Strongly Disagree

PART I. Team Cohesion of the Team Sports – Athletes

	4	3	2	1
A. Commitment to Training				
1. Our team attends training sessions regularly with full effort.				
2. My teammates are committed to improving through consistent practice.				
3. Members of our team are dedicated to performing at their best during practice.				
B. Shared Work Ethic				
4. We push each other to work hard during drills and workouts.				
5. Our team maintains a strong work ethic even when training becomes difficult.				
6. My teammates expect high performance from themselves and others.				
C. Role Clarity				
7. I clearly understand my responsibilities in the team.				
8. My teammates know what their roles are during games and practices.				
9. We rarely experience confusion about who should perform certain tasks.				
D. Skill Development Support				
10. My teammates help me improve my skills by giving feedback and support.				
11. The team cooperates to help every member strengthen their abilities.				
12. We actively encourage each other's development as athletes.				
E. Communication Skills				
13. Our team adjusts smoothly when drills or strategies change.				
14. Communication during drills is clear and effective.				
15. We collaborate well when learning new plays or training routines.				

PART II. Social Cohesion of the Team Sports – Athletes

A. Trust	4	3	2	1
1. I trust my teammates to support me during challenging situations.				
2. I feel confident that my teammates will not let me down during games.				
3. My teammates are dependable when I need help.				
B. Respect				
4. My teammates treat me with respect during both games and practices.				
5. Differences in skills or opinions are respected within the team.				
6. We show respect for each other's contributions to the team.				
C. Friendship				
7. I have developed genuine friendships with my teammates.				
8. I enjoy interacting with teammates beyond training sessions.				
9. I feel comfortable sharing personal experiences with some teammates.				
D. Inclusion and Acceptance				
10. I feel welcomed and included during all team activities.				
11. My teammates accept me regardless of my strengths or weaknesses.				
12. I rarely feel left out during team discussions or group tasks.				
E. Shared Identity				
13. I feel a strong sense of "we" rather than "I" when I think about the team.				
14. Our team shares a collective identity that makes us feel united.				
15. Being a member of this team is an important part of who I am.				

PART III. Game Performance of the Team Sports – Athletes

A. Physical Performance	4	3	2	1
1. I am physically prepared to meet the demands of competition.				
2. I can sustain my energy and endurance throughout the game.				
3. My physical condition contributes positively to my performance.				
B. Technical Performance				
4. I execute sport-specific skills accurately during games.				
5. I am consistent in performing technical skills under pressure.				
6. My technical abilities help the team during crucial moments.				

C. Tactical Performance				
7. I understand and apply team strategies effectively in games.				
8. I can make quick tactical decisions when situations change.				
9. I adjust my gameplay depending on the opponent's style.				
D. Psychological Performance				
10. I can stay focused even during intense or stressful moments.				
11. I remain confident in my abilities during competitions.				
12. I recover quickly from mistakes and refocus on the game.				
E. Team Dynamics and Measurable Outcomes				
13. I contribute positively to overall team coordination during games.				
14. My performance helps improve team outcomes such as scoring, defense, or efficiency.				
15. I believe my presence in the game increases the team's chances of success.				