Optimal Leadership Styles for Team Sports Coaches Impacting USJ-R Student Athletes' Performance

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Abstract

This study aimed to identify the optimal leadership styles for team sports coaches and their impact on the performance of student-athletes at the University of San Jose–Recoletos (USJ-R). Specifically, it examined the relationship between various leadership; Transformational, Democratic, Transactional, Authoritarian, and Laissez-Faire and the development of 21st-century learning skills, including communication, collaboration, creativity, critical thinking, and computer literacy. Data were collected through a structured survey of student-athletes, and the results were analyzed using descriptive statistics and correlation analysis. Findings revealed that the majority of student-athletes assessed their overall sports performance as Exemplar, indicating high-level in-game effectiveness. Furthermore, Democratic and Laissez-Faire leadership styles showed the strongest positive correlations with essential 21st-century skills, suggesting that these leadership approaches are most effective in enhancing athlete performance in team sports settings. The study concludes that athlete-centered leadership styles foster both skill development and competitive performance, and recommends their integration into coaching practices to support holistic athlete growth.

Keywords: Leadership Styles, USJ-R Team Sports, Coaching Strategies, Coaching Styles, Behavioral Leadership Theory, 21st Century Skills

17

1.0 Introduction

Coaching styles have a significant impact on athletes' performance, which is the focus of this study. How athletes understand and respond to coaching strategies significantly affects the team's overall performance and success. Sports coaches are central figures in developing athletes, playing a crucial role in a team's success and unity (Jones, K., 2020). Different coaching leadership approaches have varying impacts on the level of unity and teamwork within athletic teams (Mohamed, 2018). When it comes to teaching sports, instructors should base their methods on specific concerns, including the player's unique needs and developmental traits, as well as the purpose of the subject matter (Hewitt et al., 2016). The Leadership Scale for Sport evaluates key coaching styles, while the Multidimensional Model assesses coaching relationships (Jones, K., 2020). Hence, this study examines the optimal leadership styles of team sport coaches toward student-athletes.

Adolescence is a challenging period, and participating in sports can help prevent future personal and social issues. In this context, coaches play a crucial role in creating supportive environments that promote positive development (de Albuquerque et al., 2021). Building strong coach-athlete relationships is vital for athletes' growth and success (Elena Lisa et al., 2023). Coaches' diverse backgrounds and skills also shape their styles and the performance of their athletes (Bloom et al., 2014). When coaches apply suitable psycho-pedagogical and leadership approaches, they help adolescents develop both athletic and life skills (de Albuquerque et al., 2021). However, challenges remain—Rottensteiner (2013) found that athlete withdrawal in Finnish team sports was often due to personal and social issues, pointing to a lack of coach intervention and guidance.

Coaching supervision offers a space for reflection, facilitating the resolution of ethical dilemmas (Ratlabala & Terblanche, 2022). Coaches' guidance and self-awareness enhance their perception of coaching, supporting athletes in developing independent reflection and goal-setting (Mosteo et al., 2021). While athletes should own their goals, coaches play a crucial supportive role, though excessive involvement can hinder progress. Additionally, a team's performance is shaped by the coach's leadership style, with various studies proposing effective coaching techniques (Zhao, Chen, & Jowett, 2022).

In a 2019 study conducted in Botswana and South Africa, coaching styles were found to influence coaches' competence significantly. However, motivation efficacy showed no significant association with players' perceptions of leadership style, while character building was negatively linked to various leadership approaches (Keatlholetswe & Malete, 2019). Orunbayev (2023) emphasized that effective coaches understand their athletes' abilities and goals, tailoring training to ensure success. Similarly, Pill et al. (2021) viewed coaching as an educational process requiring careful planning, clear objectives, and alignment with player development. Notably, coaching styles should adapt to the demands of different sports, and flexibility is key. To support players' diverse learning needs and developmental stages, coaches must be well-prepared (Hewitt et al., 2016).

In 2023, a professor in curriculum and instruction in Ethiopia demonstrated that through instruction and preparation, coaching philosophies have a significant and beneficial impact on athletes' performance (Zemikael Getu, 2023). A study conducted by Lisa et al. (2023) in Slovakia's League examined the relevance of three elements of the Leadership Efficacy Model: leadership philosophy, practice, and criteria. The results showed that coaches have a more positive perspective than athletes when evaluating their leadership of athletes and teams. The incompatible results of coaches and students reinforce the need to develop open communication channels with athletes to adjust both perspectives more effectively.

Based on the existing facts and various studies and publications, a gap remains between the need for well-equipped, adaptable coaches and the current variability in coaching competencies. Promoting athlete autonomy poses challenges, requiring a balance between guidance and independence. Misalignment in leadership perceptions between coaches and athletes underscores the importance of open communication. Additionally, balancing competitive success with character development calls for coaching philosophies that integrate both. Bridging these gaps through targeted training, clear communication, and holistic coaching approaches is crucial to enhancing the impact of leadership styles on USJ-R student-athletes in team sports.

2.0 Theoretical Background and Conceptual Diagram

This study is informed by two important frameworks: the Behavioral Leadership Theory (BLT) of Blake and Mouton (1964) and the 21st Century Skills framework of P21 (2002). BLT focuses on achieving a balance between task-centered and people-centered leadership behaviors. BLT suggests that good leadership is not born but acquired through behavioral characteristics that contribute to productivity and psychosocial growth. By learning to observe and replicate the behaviors of successful leaders, others can be trained to become effective leaders.

Behavioral Leadership Theory encompasses various styles, including transformational, transactional, democratic, authoritarian, and laissez-faire leadership. Transformational leaders motivate and inspire followers for reasons that extend beyond self-interest, whereas transactional leaders are primarily focused on rewards and performance. Democratic leadership builds trust and collaboration, whereas authoritarian leadership is effective in rigorous, high-compliance environments. Laissez-faire leadership can increase creativity among competent, autonomous teams if the situation is right.

The 21st Century Skills framework emphasizes the need for contemporary leaders to be adaptable, collaborative, and capable of addressing complex global issues. Contemporary leaders must possess practical communication skills, be proactive, and foster innovation and transformation to drive success. Research indicates an increasing concern about a global leadership crisis, highlighting the importance of experiential leadership training across various industries. Leadership is not merely about power but about being able to respond effectively to social, technological, and economic needs.

The most important elements of 21st-century capability are creativity, collaboration, communication, critical thinking, and computer literacy. Creativity entails generating novel and valuable ideas, though such processes are likely to involve risk and uncertainty. Collaboration requires cognitive and social competencies for effective group management, encompassing team morale, task management, and open communication. High-

performing teams also practice reflective behavior to continually advance their strategies and interactions.

Computer literacy and critical thinking are also critical 21st-century skills. Computer literacy enables people to excel in education, employment, and everyday activities, while critical thinking enables individuals to evaluate information, solve problems, and make sound decisions. It is a key factor in academic achievement, flexibility, and the ability to recognize misinformation. Combined, these skills enable the creation of capable, reflective leaders for the 21st century.

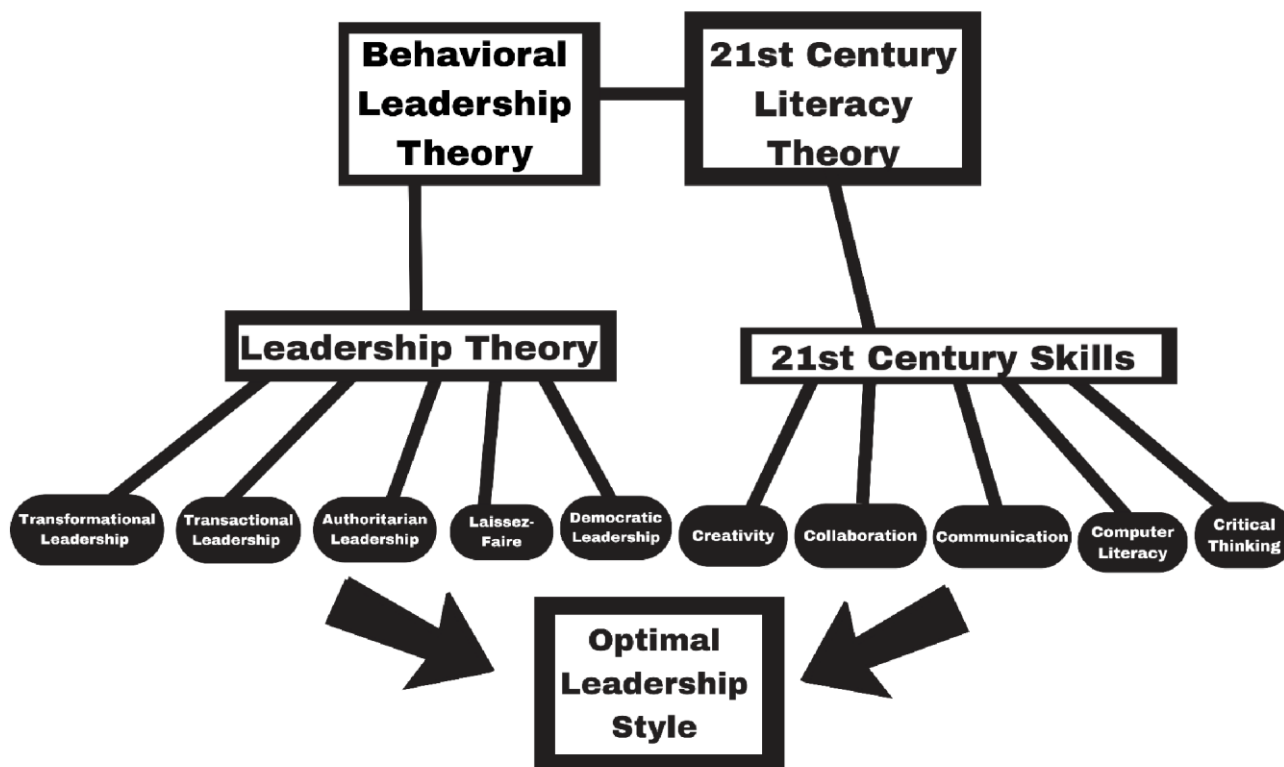In summary, Figure 1 presents the Conceptual Framework of the study, as shown below.

Figure 1. Schematic Diagram of the Study

3.0 Research Methodologies

A quantitative, descriptive, correlational design was employed in this study to investigate the relationship between the leadership styles of team sports coaches and their influence on the athletes' overall performance. These methods aim to accurately portray the characteristics of the phenomenon, enabling a deeper comprehension of the prevailing leadership style among team sport coaches in USJR.

The University of San Jose Recoletos, located in Basak-Pardo, Cebu City, has been chosen as the research environment for this study. This selection is likely due to USJ-R's athletic department's leadership in providing excellent sports achievements and competitive experiences throughout the years, competing at various levels and categories both nationally and internationally. The purpose of this study is to assess and understand the leadership styles that contribute to the University of San Jose Recoletos' success in sports, with a focus on how the institution's athletic department leadership influences its achievements and competitive performance at both national and international levels. Multi-stratified random sampling was employed to recruit 104 student athletes from various sports, including basketball, volleyball, and football, who represent 80% of both team categories. The independent variables for this research are five different leadership styles: Transformational, Democratic, Transactional, Authoritarian, and Laissez-Faire, and the dependent variable is athlete performance.

Researchers utilized a researcher-made questionnaire to gather data from student athletes regarding the perceived leadership styles of their team sports coaches, the 21st-century skills integrated, and self-assessment competencies towards their overall performance. The survey instrument also measured 21st-century skills, including communication, collaboration, creativity, critical thinking, and computer literacy, as well as athletes' self-reported capabilities, using a 4-point Likert scale.

The data collection process consisted of three stages: pre-implementation, implementation, and post-implementation. During the initial stage, instruments were validated and ethical clearances were obtained from the Recoletos Ethics Review Office (RERO) and the Student Affairs Office (SAO). Questionnaires were sent to student-athletes in the second stage, either via the internet or personally. During the third stage, data analysis was conducted using descriptive statistics and correlation analysis to determine the effective leadership styles that improve athlete performance at USJ-R.

Ethical Considerations and Data Privacy Compliance

The research is based on sound ethical principles, protecting the rights, privacy, and interests of participants by means of informed consent, compliance with the Data Privacy Act of 2012, and Recoletos Ethics Review Office approval. 15- to 25-year-old participants who are currently engaged in team sports will be

recruited using a multi-stage stratified sampling process to represent both secondary and tertiary levels. Extra ethical precautions, including assent forms and parental consent, will be taken for minors. All data collected will be kept confidential, anonymized, and kept securely in encrypted digital forms, with physical copies destroyed after digitization. The data will be stored for two years for educational purposes and then deleted permanently. While the researchers are still building their expertise, they have had training in research ethics and methodology, and will collaborate tightly with advisers and field specialists to ensure the work is carried out responsibly and professionally.

4.0 Results and Discussion

This chapter concludes the study by dealing with the summary of findings, conclusions, and recommendations on examination

Table 1.1 Transformational Leadership Styles of Team Sports Coaches

Statement	Mean	Standard Deviation	Interpretation
1. My coach employs a strategic motivational framework that enhances my confidence, autonomy, and goal-directed self-expression.	*3.49*	*0.623*	*Strongly Agree*
2. My coach prioritizes holistic development, integrating academic, personal, and professional growth into their mentorship.	*3.47*	*0.623*	*Strongly Agree*
3. My coach provides structured leadership opportunities that cultivate critical decision-making and strategic thinking.	*3.41*	*0.705*	*Strongly Agree*
4. My coach fosters a psychologically safe environment through empathy and emotional intelligence, strengthening team cohesion.	*3.37*	*0.725*	*Strongly Agree*
5. My coach spells out a carefully designed and future-oriented vision of success, using powerful communicative structures that connect personal inputs with large-scale goals.	*3.39*	*0.674*	*Strongly Agree*
General Weighted Average	*3.43*	*0.67*	***Strongly Agree***

Legend: 0.99 - 1.00 (Strongly Disagree); 1.00 - 1.99 (Disagree); 2.00 - 2.99 (Agree); 3.00 - 4.00 (Strongly Agree)

Based on the results, the highest mean score of 3.49 indicates that athletes strongly agree their coach uses motivational strategies. This means that student athletes feel more confident, independent, and focused on their goals. It benefits student athletes because it implies that they perceive their coach as someone who deliberately uses motivational strategies to bring out the best in them. Smith et al. (2019) explain that when coaches motivate their athletes and give personalized feedback, it boosts their self-confidence and helps them feel more in control of their performance. This kind of support empowers athletes, enhancing their performance not only in sports but also in their personal lives.

On the other hand, the lowest mean score of 3.37, while still positive, suggests that athletes have a slightly less focused approach to creating a safe and emotionally supportive environment. According to Cruz and Kim (2016), coaches who show empathy and emotional intelligence can help reduce stress and build stronger, more trusting teams. For athletes, this means being able to express themselves more openly and build better relationships with teammates. The results suggest that while coaching is already effective, focusing more attention on emotional support could further enhance team dynamics.

Table 1.2 Democratic Leadership Styles of Team Sports Coaches

Statement	Mean	Standard Deviation	Interpretation
1. My coach actively listens and encourages open discourse, ensuring diverse perspectives are valued in decision-making.	3.55	0.621	*Strongly Agree*
2. My coach reinforces interdependence and shared accountability, embedding teamwork as a fundamental principle.	3.43	0.665	*Strongly Agree*
3. My coach ensures equitable task distribution, preventing marginalization and promoting inclusive participation.	3.58	0.602	*Strongly Agree*
4. My coach embraces adaptability and innovation, integrating new methodologies to optimize team performance.	3.43	0.650	*Strongly Agree*
5. My coach facilitates a decentralized decision-making process, empowering individuals	3.49	0.607	*Strongly*

and fostering collective responsibility.			
General Weighted Average	3.50	0.629	Strongly Agree

Legend: 0.99 - 1.00 (Strongly Disagree); 1.00 - 1.99 (Disagree); 2.00 - 2.99 (Agree); 3.00 - 4.00 (Strongly Agree)

The highest score of 3.58 shows that athletes greatly value their coach's efforts in ensuring fair task distribution and promoting inclusivity. This indicates that respondents feel seen, respected, and equally involved in team activities. Studies, such as those by Bolter and Weiss (2015), note that fairness boosts motivation and enjoyment. The lowest score of 3.43 still reflects strong agreement, but suggests there is room to enhance team cohesion through stronger shared accountability further. Research by Leo et al. (2014) and Senécal et al. (2015) reveals that when team members actively share goals and responsibilities, it leads to improved communication, stronger cohesion, and better performance. For athletes, this means they are more likely to develop leadership skills, feel empowered, and experience a greater sense of ownership and purpose within the team.

Table 1.3 Transactional Leadership Styles of Team Sports Coaches

Statement	*Mean*	*Standard Deviation*	*Interpretation*
1. My coach establishes clear goals and performance metrics that drive continuous improvement and high achievement.	3.48	0.623	*Strongly Agree*
2. My coach uses differentiated recognition strategies tailored to individual motivational profiles, thus amplifying engagement and reinforcing sustained effort.	3.44	0.636	*Strongly Agree*
3. My coach's leadership modality induces an enriched affective commitment to training, catalyzing intrinsic motivation and a sense of fulfillment.	3.43	0.679	*Strongly Agree*
4. My coach explains things clearly and gives easy-to-follow instructions, making tasks simple to understand and complete.	3.50	0.623	*Strongly Agree*

5. My coach creates a strong team culture that encourages everyone to do their best and take responsibility for their actions.	3.46	0.667	*Strongly Agree*
General Weighted Average	3.462	0.646	*Strongly Agree*

Legend: 0.99 - 1.00 (Strongly Disagree); 1.00 - 1.99 (Disagree); 2.00 - 2.99 (Agree); 3.00 - 4.00 (Strongly Agree)

The results show that the highest mean score of 3.50 is under the statement "My coach explains things clearly and gives easy-to-follow instructions." This means that respondents strongly agree that their coach communicates effectively, which aligns with Gonzalez et al. (2022), who found that clear communication improves athletes' performance and confidence, helping them execute tasks more effectively. It enhances their understanding and self-confidence, enabling them to perform more effectively. This highlights the importance for coaches to prioritize clear communication as it fosters greater engagement, success, and trust in their guidance. Conversely, the lowest mean score of 3.43 is found under the statement "My coach's leadership modality induces an enriched affective commitment to training." This means while coaches generally foster motivation, Lopez and Rivera (2021) noted that the impact may vary based on individual factors such as an athlete's needs or background. It increases the student athlete's motivation, but the extent of this effect may vary depending on personal differences. Coaches should tailor their emotional engagement strategies to meet the diverse needs of their athletes, ensuring a more personalized and practical approach to leadership and support.

Table 1.4 Authoritarian Leadership Styles of Team Sports Coaches

Statement	*Mean*	*Standard Deviation*	*Interpretation*
1. My coach helps me set big goals, pushing me to overcome challenges while also building my confidence.	3.45	0.637	*Strongly Agree*
2. My coach gives clear and detailed instructions to make sure tasks are completed correctly and without confusion.	3.50	0.639	*Strongly Agree*
3. My coach establishes a disciplined structural framework that provides predictability and consistency, as the basis of operational dynamics in the team.	3.50	0.683	*Strongly Agree*

Statement	Mean	Standard Deviation	Interpretation
4. My coach's decision-making acumen and responsiveness to time when necessary maximizes the effectiveness of the team in their operation, flexibility, and responsiveness to goals.	3.49	0.638	*Strongly Agree*
5. My coach's structured methodologies instill a heightened capacity for sustained focus and self-regulatory behaviors, which allow me to be resilient under adversity.	3.47	0.638	*Strongly Agree*
General Weighted Average	***3.482***	***0.647***	***Strongly Agree***

Legend: 0.99 - 1.00 (Strongly Disagree); 1.00 - 1.99 (Disagree); 2.00 - 2.99 (Agree); 3.00 - 4.00 (Strongly Agree)

The results show that the highest mean score of 3.50 shows that athletes feel their coach provides a clear, structured framework that keeps the team stable. This suggests that respondents benefit from knowing what is expected of them, leading to a more organized and focused training environment. Murray and Mann (2014) found that having a structured approach is key to team stability. For the athletes, this structure enhances their confidence, reduces stress, and allows them to concentrate more on skill development and performance. The lowest mean score of 3.45, while still positive, suggests that while coaches set big goals to boost confidence and help athletes overcome challenges, there is room for improvement. This feedback is important because it highlights an opportunity for coaches to involve athletes more in the goal-setting process. Vella et al. (2014) found that setting goals not only motivates athletes but also fosters personal growth. For the respondents, this means that clearer, more personalized goals could help them feel more empowered, develop resilience, and take greater ownership of their athletic journey, ultimately enhancing both individual and team performance.

Table 1.5 Laissez-Faire Styles of Team Sports Coaches

Statement	Mean	Standard Deviation	Interpretation
1. My coach trusts me to make my own decisions while reminding me to stay responsible for my actions.	3.38	0.628	*Strongly Agree*
2. My coach has opportunities for autonomous performance that are aligned with the developmental readiness, balancing between independence and guided intervention.			
3. My coach finds the right balance between giving me freedom and providing structure, making sure I explore new things with proper guidance.	3.52	0.607	*Strongly Agree*
4. My coach focuses on developing higher-order cognitive capabilities by equipping me with critical thinking and a daptive problem-solving skills in order to face complex challenges.	3.38	0.687	*Strongly Agree*
5. My coach acts to create an ideational environment which promotes cognitive divergence, so as to be able to develop innovative and non-linear approaches to the optimization of performance.	3.49	0.591	*Strongly Agree*
General Weighted Average	3.444	0.63	*Strongly Agree*

Legend: 0.99 - 1.00 (Strongly Disagree); 1.00 - 1.99 (Disagree); 2.00 - 2.99 (Agree); 3.00 - 4.00 (Strongly Agree)

The results show that the highest mean score of 3.52 indicates that athletes feel their coach effectively balances freedom and structure, allowing them to explore ideas with guidance and support. This means athletes are trusted to explore their ideas while still receiving the guidance they need. Studies by Guay, Boggiano, and Vallerand (2020) validate this finding, showing that such coaching enhances intrinsic motivation and competence, thereby providing evidence that strengthens and supports the current results. This benefits student-athletes by encouraging creativity, improving performance, and fostering a sense of self-driven growth. On the other hand, the lowest mean score of 3.38, while still positive, suggests there is room for improvement in promoting personal responsibility. This means that although athletes generally feel encouraged to take ownership of their roles, some may still rely heavily on the coach for direction and decision-making. The study by Almagro, Saenz-López, and Moreno (2017) highlights that when coaches give athletes meaningful choices and encourage their input, it helps boost both motivation and a sense of responsibility. In simpler terms, when athletes feel trusted and involved in their development, they are more likely to stay driven and take ownership of their actions. For the respondents, this kind of support helps them become more confident, focused, and

committed -not just to their sport, but to their personal growth. This suggests that if coaches continue to employ strategies such as self-assessment and goal-setting, they can help athletes develop stronger habits, enhance their performance, and become more responsible individuals overall.

Statement	Mean	Standard Deviation	Interpretation
1. My coach's communicative methodologies are underpinned by pedagogical intentionality, ensuring that instructional clarity is complemented by affective resonance and motivational alignment.	3.41	0.617	Strongly Agree
2. My coach creates a dialogical environment characterized by openness and psychological safety, facilitating candid discussions regarding developmental needs and performance optimization.	3.47	0.653	Strongly Agree
3. My coach's feedback mechanisms are strategically calibrated to balance constructive critique with affirmative reinforcement, fostering iterative improvement and skill acquisition.	3.44	0.708	Strongly Agree
4. My coach creates a positive and encouraging environment, using motivating words to help both individuals and the whole team work well together.	3.43	0.650	Strongly Agree
5. My coach's articulation of performance expectations integrates motivational imperatives with operational specificity, ensuring alignment with strategic goals.	3.43	0.679	Strongly Agree
General Weighted Average	3.436	0.661	Strongly Agree

Legend: 0.99 - 1.00 (Strongly Disagree); 1.00 - 1.99 (Disagree); 2.00 - 2.99 (Agree); 3.00 - 4.00 (Strongly Agree)

The results show that the highest mean score of 3.47, rated as "Strongly Agree," indicates that coaches are doing a great job of creating a safe and open space where athletes feel comfortable discussing their progress and challenges. This supportive communication helps build trust and fosters both personal and team growth, which aligns with Pugh and Broome's (2020) concept of dialogical coaching. Their research highlights the importance of open dialogue between coaches and athletes in strengthening the relationship, which benefits the respondents by making them feel valued, heard, and motivated to improve not only individually but also as a team. On the other hand, the lowest score of 3.41, although still positive, suggests that while coaches are effective at using encouraging words to motivate the team, there is room for improvement in team dynamics. Zenger and Folkman (2019) argue that while motivation is essential, building strong relationships and trust within the team is just as crucial for success. This implies that coaches should focus more on fostering team unity and collaborative relationships, which may lead to even stronger overall team performance and cohesion.

Table 2.2 Creativity

Statement	Mean	Standard Deviation	Interpretation
1. My coach encourages creativity in learning, helping us think flexibly and adapt to different situations such as a team.	3.46	0.667	Strongly Agree
2. My coach uses adaptive problem-solving frameworks to deal with emergent challenges, developing resilience and critical thinking as part of the skill-acquisition process.	3.41	0.705	Strongly Agree
3. My coach develops a knowledge ecology where innovative practices are valued, synthesized, and operationalized to improve performance results.	3.37	0.725	Strongly Agree
4. My coach develops a knowledge ecology where innovative practices are valued, synthesized, and operationalized to improve performance results.	3.47	0.607	Strongly Agree
5. My coach encourages curiosity and deep thinking, helping the team come up with creative and unique strategies to succeed.	3.46	0.622	Strongly Agree

General Weighted Average	**3.434**	**0.665**	*Strongly Agree*

Legend: 0.99 - 1.00 (Strongly Disagree); 1.00 - 1.99 (Disagree); 2.00 - 2.99 (Agree); 3.00 - 4.00 (Strongly Agree)

The results show that the highest mean score of 3.47, marked as "Strongly Agree," indicates that coaches create a space where creativity is encouraged, helping the team stay flexible and adapt to challenges. This means that team members are given the freedom to share ideas, try new approaches, and think creatively, especially when facing challenges. This supports Amabile's (2021) findings show that teamwork and brainstorming together can enhance creativity. For the respondents, a creative team environment fosters adaptability, confidence, and problem-solving skills. It also boosts engagement and a sense of ownership, benefiting both their athletic performance and personal development beyond sports. The lowest mean score of 3.37, though still "Strongly Agree," suggests that while coaches are doing well in fostering creativity, there is potential for even more support and systems to help innovation thrive. This means that athletes may benefit from more precise guidance, resources, or opportunities that further encourage experimentation and the sharing of ideas. As Sawyer (2019) pointed out, long-term innovation needs stronger backing, and coaches could further improve by building an environment that combines creativity with the proper structural support. Strengthening this area provides respondents with more opportunities to express their ideas, build confidence, and contribute creatively to the team. It also helps develop valuable skills, such as decision-making, collaboration, leadership, and innovation, beyond the court.

Statement	*Mean*	*Standard Deviation*	*Interpretation*
1. My coach systematically integrates critical thinking paradigms into the training curriculum, equipping me with the analytical tools necessary for effective problem-solving and decision-making.	3.33	0.660	*Strongly Agree*
2. My coach insists on an iterative process of self-reflection and performance analysis, which instills a growth-oriented mind-set and adaptive learning behavior.	3.43	0.679	*Strongly Agree*
3. My coach sets up special moments to help analyze strategies and decisions, helping us understand complex ideas in a smarter way.	3.36	0.696	*Strongly Agree*

4. The interventions by my coach are directed toward developing resilience-based problem-solving capacities, equipping me to adapt to real-time conditions in competition.	3.45	0.652	*Strongly Agree*
5. My coach emphasizes metacognitive reflection about the decision and outcome, understanding better how cause leads to effect through iterations that optimize further.	3.34	0.691	*Strongly Agree*

Legend: 0.99 - 1.00 (Strongly Disagree); 1.00 - 1.99 (Disagree); 2.00 - 2.99 (Agree); 3.00 - 4.00 (Strongly Agree)

The results show that the highest mean score of 3.45 reflects that coaches are successfully incorporating critical thinking into training, which helps athletes enhance their problem-solving abilities. Dewey's (2021) research supports this by highlighting the importance of structured reflection in personal and cognitive development. This approach benefits the respondents by improving their ability to analyze situations, make decisions, and adapt to challenges more effectively, leading to better performance and growth both on and off the field. On the other hand, the lowest mean score of 3.33 suggests that while coaches are encouraging metacognitive reflection, these advanced skills take time to fully develop. Flavell (2020) points out that metacognitive analysis requires patience and should be introduced gradually to achieve the best results. This implies that coaches should pace the development of these skills, ensuring that athletes have enough time and support to internalize and apply them effectively, ultimately enhancing their cognitive and strategic abilities in the long run.

Table 2.4 Collaboration

Statement	*Mean*	*Standard Deviation*	*Interpretation*
1. My coach underlines the superior place of synergy in helping groups achieve success, basing interdependence and respect in team relationships.	3.59	0.601	*Strongly Agree*
2. My coach allows open communication and collective dialogue and makes sure that full information and coordination are accorded with all team members.	3.48	0.638	*Strongly Agree*

Statement	Mean	Standard Deviation	Interpretation
3. My coach institutionalized a culture of shared accountability and distributive leadership, ensuring equitable contributions and a unified commitment to collective objectives.	3.44	0.666	*Strongly Agree*
4. My coach curates collaborative opportunities for ideation and strategic problem-solving, leveraging the collective intelligence of the team to navigate complexities.	3.40	0.676	*Strongly Agree*
5. My coach's emphasis on teamwork integrates theoretical frameworks and practical applications, highlighting the symbiosis between individual agency and collective efficacy.	3.38	0.685	*Strongly Agree*
General Weighted Average	**3.485**	**0.653**	*Strongly Agree*

Legend: 0.99 - 1.00 (Strongly Disagree); 1.00 - 1.99 (Disagree); 2.00 - 2.99 (Agree); 3.00 - 4.00 (Strongly Agree)

The findings shows that the highest mean score of 3.59 indicates that athletes value their coach's emphasis on synergy, meaning they recognize the importance of working together harmoniously and respecting one another's contributions. This reflects a team environment where collaboration, communication, and shared goals are prioritized, which promotes teamwork and mutual respect, consistent with Johnson's (2021) research on effective team dynamics. For the respondents, an emphasis on synergy builds trust, reduces conflict, and fosters team belonging. It enhances communication, teamwork, and personal growth, preparing athletes for collaboration both in sports and in life. The lowest score of 3.38, while still strong, suggests that athletes may benefit from a greater role in shared accountability. This means that while collaboration is present, there is potential for athletes to take on a more active role in setting goals, making decisions, and owning the outcomes of team efforts. According to Thompson (2020), athletes perform better when they are more actively involved, so coaches could enhance collaboration by fostering this level of engagement. Increasing shared accountability empowers respondents, strengthens commitment, and deepens their connection to team success. It also builds leadership, trust, and essential life skills like decision-making, communication, and teamwork.

Table 2.5 Computer Literacy

Statement	Mean	Standard Deviation	Interpretation
1. My coach applies the latest technological devices for superior performance analytics and embeds data-driven information in individually tailored training plans	3.38	0.828	*Strongly Agree*
2. My coach utilizes video analytical software to allow minute details of diagnosis that enables tracking of performance inefficiencies to be addressed accordingly.	3.35	0.760	*Strongly Agree*
3. My coach is able to make access to any digital platform or resources for alignment between training methods and contemporary advancements in technology for acquiring proper skills.	3.45	0.709	*Strongly Agree*
4. My coach uses technology to track performance and progress, helping us make better decisions based on the data.	3.42	0.759	*Strongly Agree*
5. My coach encourages technological fluency by arming me with the competencies to both navigate and leverage performance-enhancing digital ecosystems.	3.39	0.743	*Strongly Agree*
General Weighted Average	*3.398*	*0.760*	*Strongly Agree*

Legend: 0.99 - 1.00 (Strongly Disagree); 1.00 - 1.99 (Disagree); 2.00 - 2.99 (Agree); 3.00 - 4.00 (Strongly Agree)

The findings show that the highest mean score of 3.45 means athletes truly value having easy access to digital resources, as it helps them keep up with the pace of modern training. Wilson's (2022) study supports this, pointing out how digital tools can make learning more engaging, training more interactive, and overall performance better. For the athletes, this means they can train more efficiently, stay motivated, and develop their skills in a way that feels more personalized and current. On the other hand, the lowest score of 3.35, though still strong, suggests that athletes prefer general access to technology over more specific tools like video

analysis. Lee's (2021) research echoes this by showing that athletes tend to feel more comfortable with familiar tech they use every day rather than specialized tools. This implies that while it's important for coaches to keep offering a range of digital resources, it's also helpful to slowly introduce and explain the value of tools like video analysis. Doing so can help athletes feel more confident using them, leading to better focus, deeper learning, and a training environment that's both modern and athlete-friendly.

Table 11. Student-athletes overall performance

f	%	Performance Level
70	67.31%	Exemplary
26	25.00%	Satisfactory
7	6.73%	Fair
1	0.96%	Poor

104	100%	Total

Legend: *0.96% - 6.72% (Poor); 6.73% - 24.99% (Fair); 25.00% - 67.30% (Good); 67.31% - 100.00% (Exemplar)*

The overall performance of student-athletes in team sports is presented in Table 11. A majority of the athletes (67.31%) demonstrated *Exemplary* performance during games, suggesting that the coaches' leadership styles are highly effective and well-received. Additionally, 25.00% of the athletes were rated as *Satisfactory*, indicating that while the coaches are generally effective, there is still room for growth and improvement in their leadership approaches. Only 6.73% and 0.96% of athletes were categorized as *Fair* and *Poor*, respectively, implying that underperformance is minimal. These findings highlight that most student-athletes perform well in competitive environments and perceive their coaches' leadership styles as significantly contributing to their success.

Table 12. Significant relationship between Leadership style and 21st Century Learning Skills towards student athletes' overall performance

Variables	*Communication*	*Creativity*	*Critical Thinking*	*Collaboration*	*Computer Literacy*
Transformational	**0.647***	**0.685***	**0.638***	**0.501***	**0.528***
Democratic	**0.709***	**0.714***	**0.629***	**0.562***	**0.681***
Transactional	**0.691***	**0.680***	**0.629***	**0.484***	**0.575***
Authoritarian	**0.664***	**0.745***	**0.578***	**0.545***	**0.610***
Laissez Faire	**0.745***	**0.703***	**0.668***	**0.519***	**0.601***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table 12 reveals a statistically significant relationship between various leadership styles and 21st Century Learning Skills in relation to student-athletes' overall sports performance. Notably, Democratic and Laissez-Faire leadership styles exhibit the strongest positive correlations across key skills such as communication ($r = 0.709$ and $r = 0.745$, respectively), creativity, and critical thinking. These findings suggest that when student-athletes are given opportunities for autonomy, expression, and collaborative decision-making, their performance is enhanced through the development of essential modern competencies. This aligns with Bass and Avolio's (1994) theory on transformational and participative leadership, which emphasizes that empowering team members fosters innovation, intrinsic motivation, and higher performance outcomes. Their work supports the idea that leadership approaches that value input, promote open communication, and support independence contribute significantly to both individual and team success.

Statement of the Problem 5: To what extent do the Leadership style and 21st Century Learning Skills impact the athlete's performance levels?

The extent to which leadership styles and 21st century learning skills impact athlete performance levels is strongly supported by the data. The data from Table 12 reveals that there is a strong and meaningful connection between a coach's leadership style and the development of key 21st-century learning skills-such as communication, creativity, critical thinking, collaboration, and computer literacy -among student-athletes. All relationships were statistically significant ($p < .001$), showing that the way a coach leads can greatly impact how athletes grow, both on and off the field. Democratic and Laissez-faire leadership styles showed the strongest positive effects, especially in encouraging creativity and communication. Therefore, both leadership style and the development of 21st century learning skills have a considerable and positive impact on student-athletes' performance levels. This implies that maximizing athlete performance goes beyond physical training; it requires coaches to adopt leadership approaches that enhance cognitive and interpersonal skills. Institutions should therefore invest in equipping coaches with the ability to apply leadership styles that foster communication, collaboration, creativity, and critical thinking, as these are crucial in driving athletic excellence. Overall, the results highlight how important it is for coaches to be aware of their leadership style, as it not only shapes athletic performance but also supports the development of vital skills that prepare student-athletes for future success beyond the game.

Conclusion

The study's findings reveal that the majority of USJ-R student-athletes demonstrate high levels of sports performance, with over 67% categorized as Exemplar and an additional 25% categorized as Good. This indicates a generally strong performance output among the athletes. Moreover, the significant correlations between leadership styles and 21st-century learning skills demonstrate that leadership has a substantial influence on the development of competencies vital for athletic success. Among the five styles analyzed, Democratic and Laissez-Faire leadership styles exhibit the strongest positive relationships with essential skills, including

communication, creativity, and critical thinking. These skills are known to enhance in-game decision-making, teamwork, and adaptability—key components of team sports performance. Thus, the study concludes that Democratic and Laissez-Faire leadership styles are the most optimal for coaches working with team sports athletes, as they foster both skill development and performance outcomes.

Recommendation

Based on the findings, it is recommended that coaches adopt athlete-centered leadership styles, particularly Democratic and Laissez-Faire approaches. These styles have been shown to positively influence essential 21st-century skills such as communication, creativity, and critical thinking, which are crucial for optimal performance in team sports. To support this, institutions like USJ-R should implement leadership training programs and workshops for coaches, equipping them with strategies that align with modern coaching approaches. Additionally, it is advisable to supplement traditional performance metrics with self-assessment tools and skill-based evaluations that provide a more comprehensive view of student-athlete development. Future research may benefit from incorporating qualitative data, such as interviews or focus group discussions, to gain deeper insights into how athletes perceive and are influenced by different coaching styles. Ultimately, it is crucial for sports programs to intentionally incorporate 21st-century learning skills into their training frameworks, ensuring that athletes are prepared not only for competition but also for life skills that extend beyond the playing field.

References:

1. Albuquerque, L. R., et al. (2021). Influence of the coach's method and leadership profile on the positive development of young players in team sports. *J. Sports Sci. Med.*, 20(1), 9–16. https://doi.org/10.52082/jssm.2021.9

2. Al-Olayan, A. M., & Al-Zamel, A. M. (2019). The impact of transactional leadership on organizational performance: A systematic review. *Int. J. Leadership Stud.*, 13(2), 111–129.

3. Annan, K. (2016, February 3). The world has a leadership crisis, not a knowledge crisis. *LinkedIn*. https://www.linkedin.com/pulse/world-has-leadership-crisis-knowledgekofi-annan

4. Ahern, A., Dominguez, C., McNally, C., O'Sullivan, J. J., & Pedrosa, D. (2019). A literature review of critical thinking in engineering education. *Stud. High Educ.*, 44, 816–828.

5. Bass, B. M., & Avolio, B. J. (2016). *Multifactor Leadership Questionnaire (MLQ): Manual for the fifth edition*. Routledge.

6. Bloom, G. A., et al. (2014, March). Coaching high performance athletes: Implications for coach training. *ResearchGate*. https://www.researchgate.net/publication/262413773

7. Bochoa. (2024, July 10). Despite stomach illness the night before, USJ-R powered Central Visayas wins in Palaro volleyball opener. *Cebu Daily News*. https://cebudailynews.inquirer.net/583525

8. Bonsu, S., & Twum-Danso, E. (2018). Leadership style in the global economy: A focus on cross-cultural and transformational leadership. *J. Mark. Manag.*, 9(2), 37–52.

9. Chen, C.-Y., & Wu, C.-C. (2021). The mediating role of employee engagement in the relationship between transactional leadership and organizational citizenship behavior. *J. Bus. Res.*, 123, 181–190.

10. Corazza, G. E. (2016). Potential originality and effectiveness: The dynamic definition of creativity. *Creativity Res. J.*, 28, 258–267.

11. Demirdag, S. (2022). The mediating role of communication skills in the relationship between leadership style and 21st-century skills. *ERIC Report No. 1374093*.

12. Deshwal, V., & Ali, M. A. (2020). A systematic review of various leadership theories. *Shanlax Int. J. Commer.*, 8(1), 38–43.

13. Dike, V. E., Odiwe, K., Ehujor, D. M., & Dike, V. E. (2015). Leadership and management in the 21st century organizations: A practical approach. *World J. Soc. Sci. Res.*, 2(2).

14. Dumitru, D., Bigu, D., Elen, J., Ahern, A., McNally, C., & O'Sullivan, J. (2018). A European review on critical thinking educational practices in higher education institutions. *UTAD*.

15. Glăveanu, V. P. (2014). The psychology of creativity: A critical reading. *Creativity Theor. Res. Appl.*, 1, 10–32.

16. Girma, B. (2022). A review of educational leadership challenges in the 21st century. *Int. J. Educ. Technol. Sci.*, 2(4).

17. Graesser, A. C., et al. (2018). Advancing the science of collaborative problem solving. *Psychol. Sci. Public Interest*, 19, 59–92.

18. Halpern, D. F., & Dunn, D. S. (2021). Critical thinking: A model of intelligence for solving real-world problems. *J. Intell.*, 9, 22.

19. Hewitt, M., et al. (2016). Investigating the teaching styles of tennis coaches using the Spectrum. *ProQuest*. https://www.proquest.com

20. Hitchcock, D. (2020). Critical thinking. In *The Stanford Encyclopedia of Philosophy* (Fall 2020 Edition). Stanford University.

21. Jin, H., et al. (2022). Effects of leadership style on coach-athlete relationship, athlete motivation, and satisfaction. *Front. Psychol.*, 13(1). https://doi.org/10.3389/fpsyg.2022.1012953

22. Jones, K. (2020). Coaching styles and leadership in enhancing team performance [Master's thesis, SUNY Brockport]. SUNY Brockport Repository. https://hdl.handle.net/20.500.12648/3947

23. Keatlholetswe, L., & Malete, L. (2019). Coaching efficacy, player perceptions of coaches' leadership styles,

and team performance in premier league soccer. *Res. Q. Exerc. Sport*, 90(1), 71–79.

24. Khun, D. C. (2019). Correlation of coaches' self-perceived efficacy with athletes' perceptions of coaching effectiveness. *ProQuest*. https://www.proquest.com

25. Kim, H.-D., & Cruz, A. B. (2016). The influence of coaches' leadership styles on athletes' satisfaction and team cohesion: A meta-analytic approach. *Int. J. Sports Sci. Coaching*, 11(6), 900–909.

26. Kramer, M., Page, L., & Klemic, G. (2019). Evolving leadership: New clues and cues toward environment and context. *J. Leadership Stud.*, 12(4), 82–85. https://doi.org/10.1002/jls.21618

27. Kul, M., & Kırkbir, H. (2023). Investigation of the relationship between the leadership styles perceived by coaches and the levels of organizational commitment. *Int. J. Sport Cult. Sci.*, 11(4), 247–260.

28. Ladegard, G., & Gjerde, S. (2014). Leadership coaching, leader role-efficacy, and trust in subordinates. *Lea. Q.*, 25(4), 631–646. https://doi.org/10.1016/j.leaqua.2014.02.002

29. Lazarus, G. N., Adesoji, A. A., & Jinadu, I. (2019). Leadership and management practices in 21st century academic libraries. *J. Libr. Serv. Technol.*, 1(2), 51–61.

30. Lisá, E., et al. (2023). Leadership cycles, styles, and antecedent factors: The perspective of coaches and young soccer athletes. *Front. Psychol.*, 14. https://doi.org/10.3389/fpsyg.2023.1218290

31. Mcosep. (2017, October 28). USJ-R eager to compete in Xiamen International basketball tilt in China. *Cebu Daily News*. https://cebudailynews.inquirer.net/152300

32. Mlis, T. R. M. (2024, June 3). Top 10 computer literacy skills for success. *EBSCO*. https://www.ebsco.com/blogs/ebscopost/2525500

33. Mohamed, M., et al. (2018). Perceived leadership styles and its relationship. *ProQuest*. https://www.proquest.com

34. Mosteo, L., et al. (2021). Executive coaching: An exploration of the coachee's perceived value. *Lea. Org. Dev. J.*, 42(8), 1241–1253. https://doi.org/10.1108/lodj-02-2021-0046

35. OECD. (2017). PISA 2015 collaborative problem-solving framework. In *PISA 2015 Assessment and Analytical Framework*. OECD Publishing.

36. Orunbayev, A. (2023). Approaches, behavioral characteristics, principles, and methods of work of coaches and managers in sports. *Am. J. Soc. Sci. Hum. Res.*, 3(11), 133–151. https://doi.org/10.37547/ajsshr/Volume03Issue11-16

37. Pasquinelli, E., Farina, M., Bedel, A., & Casati, R. (2021). Naturalizing critical thinking: Consequences for education. *Mind Brain Educ.*, 15, 168–176.

38. Pill, S., SueSee, B., Rankin, J., & Hewitt, M. (2021). *The spectrum of sport coaching styles*. Routledge. https://doi.org/10.4324/9781003041443

39. Ratlabala, P., & Terblanche, N. (2022). Supervisors' perspectives on coaching supervision and ethical organizational coaching practice. *SA J. Hum. Res. Manag.*, 20, a1930. https://doi.org/10.4102/sajhrm.v20i0.1930

40. Ren, X., Tong, Y., Peng, P., & Wang, T. (2020). Critical thinking predicts academic performance beyond general cognitive ability. *Intell.*, 82, 101487.

41. Zamudio-Suaréz, F. (2016, September 22). SUNY Polytechnic president charged with felony bid-rigging. *Chronicle of Higher Education*. http://www.chronicle.com/blogs/ticker/suny-polytechnic-president-charged-with-felonybid-riggin g-is-suspended-without-pay/114576

42. Zemikael, G. (2023). The impact of coach administration fashion on athlete's execution of sports club of Addis Ababa. *J. Res. Soc. Sci. Econ. Manag.*, 3(1), 68–78. https://doi.org/10.59141/jrssem.v3i1.521

43. Zhao, C., & Jowett, S. (2022). Before supporting athletes, evaluate your coach–athlete relationship. *Int. J. Sports Sci. Coaching*, 18(3), 174795412211481. https://doi.org/10.1177/17479541221148113