



Student-Athletes' Perception on the Coaching Styles, Strategies, and Coaches' Performance in Basketball: A Correlation Analysis

Article History:

Initial submission:	06 May 2025
First decision:	11 May 2025
Revision received:	05 June 2025
Accepted for publication:	14 June 2025
Online release:	24 June 2025

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Abstract

This study determined how coaching styles and strategies influenced the perceived coaching performance of basketball athletes in public secondary schools. Through researcher made questionnaires distributed to 63 student-athletes aged 12-15 from selected secondary schools in one of the Divisions of Region IV-A, the research assessed athletes for specific coaching approaches and their perceived effectiveness. Utilizing a descriptive-correlational research design, the study focused on four coaching styles: Reciprocal, Command, Problem-Solving and Guided Discovery. Coaching strategies were measured based on the following: Communication, Player Development and Organization. While coaching performance were assessed based on Instructional Strategy, Organizational Strategy, Social Relationship Functions, Relationships with athletes and Influence on athletes. The findings revealed that Problem-Solving and Guided Discovery were the most preferred coaching styles, while Player Development emerged as the highest-rated strategy. Significant positive correlations were found between the Problem-Solving style and key areas of coaching performance, particularly Organizational Strategy. Additionally, strategies such as Social Relations and Organization were strongly linked to overall coaching effectiveness. The study emphasized that effective basketball coaching relies not only on tactical instruction but also on empowering athletes through problem-solving opportunities and fostering strong coach-athlete relationships. These findings suggest that adopting athlete-centered and relationship-driven coaching practices play a vital role in enhancing player development and performance.

Keywords: coaching styles, coaching strategies, coaches' performance, basketball athletes, player development, athlete perception, public secondary schools



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INTRODUCTION

Basketball was widely recognized as the most popular sport in the Philippines, hence, became a significant part of the country's cultural identity. Introduced in 1898 by American colonial forces, the sport quickly spread through the educational system and communities, with formal incorporation into Philippine schools via the YMCA (Huffman, 2024). Initially introduced to women and played in interscholastic events, men's basketball teams soon formed, and the sport grew into a national pastime. The Philippines began competing internationally in tournaments like the FIBA World Championship and the Asian Games, achieving notable successes, including a gold medal in 1951 (Zhang et al., 2020).

Given basketball's strong presence in Philippine schools, secondary public schools played a crucial role in developing young athletes by providing opportunities to learn and hone their skills (Malaborbor, 2022).

Basketball has become a top sport in education because of its physical, cognitive, and social benefits. With this, schools offered structured programs such as basketball academies, clinics, and competitions where coaches acted as educators, guiding students in both athletic skills and personal growth (Fernanda et al., 2022). Coaching in this context involved pedagogical principles, requiring not only technical training but also mentorship, discipline, motivation, and the development of life skills (Hu, 2024).

Filipino basketball coaches often blended traditional and modern training methods, integrating scientific techniques with cultural values such as "pakonsiyensya" (conscience), which emphasized moral responsibility and character development alongside athletic performance. This combination of pedagogy and coaching shaped players holistically, addressing their physical, mental, and ethical growth. One research showed that coaches used a mix of democratic, autocratic, and holistic coaching styles, each influencing player motivation, satisfaction, and performance in different ways (Cruz et al., 2022; Datuin & Magsino, 2022).

Coaching basketball in schools, therefore, went beyond winning games. It was fundamentally a teaching role where a coach's leadership style affected team dynamics, player development, and educational outcomes (Atta et al., 2021). The coaching approach shaped how players learned teamwork, discipline, and decision-making—skills valuable both on and off the court (Qureshi, 2022). Coaches adapted their methods based on experience, team needs, and educational goals to balance authority with athlete autonomy.

Effective coaching also required strategic thinking about offense, defense, and player readiness, showing that teaching in sports demanded both technical knowledge and adaptable instructional skills (Sipkin, 2024). Philippine educational policies supported this role by requiring qualified coaches in schools through frameworks like Republic Act No. 9155, which emphasized physical education and sports as essential to student development (Caluag, 2025).

Despite the importance of coaching as a pedagogical practice in basketball, research on coaching styles and strategies in Philippine secondary public schools remained limited. Existing studies rarely linked coaching directly to educational outcomes or explored how different approaches affected student-athlete growth in this setting (Atta et al., 2021). This gap pointed to the need to study coaching not just as

sports leadership but as a form of teaching that influenced skills, motivation, and character development.

This study aimed to fill that gap by examining how coaching styles and strategies in selected secondary public schools in Biñan, Laguna, related to the performance and development of student-athletes. It offered new insights into the role of basketball coaches and how their chosen methods helped athletes become more skilled and efficient. The findings benefited multiple groups: coaches could refine their training through increased awareness; school administrators might support programs focused on athlete development; and researchers could use the results to guide future studies on coaching styles and strategies. Ultimately, this research supported efforts to create more effective basketball programs that enhanced both athletic performance and educational growth by highlighting coaching as a key teaching process.

Theoretical Framework. This study was based on two key models of coaching effectiveness. First, the Multidimensional Model of Leadership (Chelladurai & Saleh, 2007) highlights that effective coaching depends on aligning required behavior (situational demands), preferred behavior (athlete expectations), and actual behavior (coach's actions). When these align, motivation, satisfaction, cohesion, and team performance improve. The model also stresses the need for coaches to adapt their style to fit changing situations and athlete needs.

Second, the Coaching Effectiveness and Coach–Athlete Relationship model (Zardoshtian et al., 2023) emphasizes that a coach's behavior and communication influence athletes' motivation, satisfaction, and performance by fostering trust and support. This is especially important in the Philippines, where youth players are still developing confidence and skills.

Together, these models guide this study in exploring how coaching styles and strategies affect coach performance in Philippine

secondary basketball, highlighting the role of behavioral alignment and strong coach–athlete relationships in enhancing coaching effectiveness.

Conceptual Framework. The framework presented was focused on how to assess the coaching style, strategies and the level of coaching performance of basketball coaches and how the variables present in the study interacted with each other in the actual setting or connected, this study adopted the -P Model or framework that proposed a program or any intervention measure.

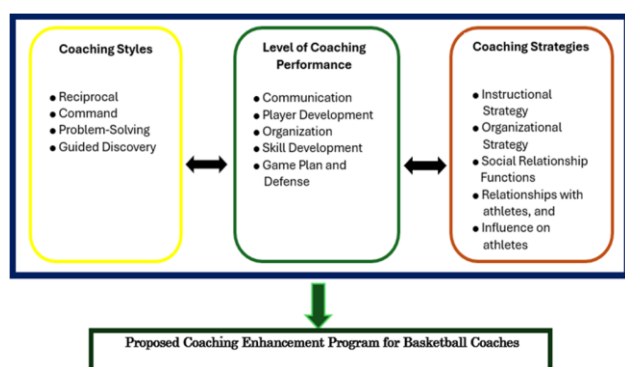


Figure 1
-P Model for Coaching Styles, Strategies and the Level of Coaching Performance among Basketball Coaches as Basis for a Proposed Coaching Enhancement Program.

As shown in Figure 1, the study was anchored under a conceptual paradigm that explained the interrelationship of coaching styles and coaching strategies with the level of performance as perceived by athletes regarding their basketball coaches. This paradigm started with coaching styles and coaching strategies. Coaching styles referred to different modes of instructing and interacting with an athlete; in particular, these included reciprocal style, command style, problem-solving and guided-discovery style. On the contrary, coaching strategies related to an effective communication system of work on player development, organization, skill development, and game planning, all of which assisted in carrying out the training regime. The interplay of these factors affected the perceived level of performance of the basketball coach, which was evaluated according to various dimensions

such as instructional strategy, organizational strategy, social relationship functions, organizational ability, skill development and other factors involving the general influence of the coach on the athletes. From these interrelationships, the basis on which an improved training program was proposed to produce better skilled and more efficient basketball athletes was derived. This program gave due consideration to chosen coaching styles and strategies.

Statement of the Problem. This study aimed to correlate the coaching styles and coaching performance strategies of the coaches as well as between coaching strategies and coaching performance. Specifically, it answered the following questions:

1. What is the level of coaching styles being employed by the basketball coaches as perceived by the basketball players in terms of the following variables:
 - 1.1 Reciprocal style;
 - 1.2 Command style;
 - 1.3 Problem-solving; and,
 - 1.4 Guided discovery style?
2. What is the level of coaching strategies being employed by the basketball coaches as perceived by the basketball players in terms of the following variables:
 - 2.1 Communication;
 - 2.2 Player Development;
 - 2.3 Organization;
 - 2.4 Skill Development; and,
 - 2.5 Game Plans and Defense?
3. What is the level of coaching performance of the basketball coach as perceived by the basketball players in terms of:
 - 3.1 Instructional Strategy;
 - 3.2 Organizational Strategy;
 - 3.3 Social Relationship Functions;
 - 3.4 Relationships with athletes; and,
 - 3.5 Influence on athletes?
4. Is there a significant relationship between the coaching styles and the coaching performance of the basketball coaches?

5. Is there a significant relationship between the coaching strategies and the coaching performance of the basketball coaches?
6. What enhanced training program can be proposed for the coaches of basketball in secondary public schools?

Hypotheses. At 0.05 level of significance, the following hypotheses were tested:

Ho₁. There is no significant relationship between the coaching styles and the coaching performance of the basketball coaches.

Ho₂. There is no significant relationship between the coaching strategies and the coaching performance of the basketball coaches.

METHODS

This section provided a detailed description of the research design and methodology employed in the study. It also outlined the study locale and respondents likewise the instruments, procedures used for data collection and the statistical tools used for the data analysis.

Research Design. The descriptive-correlational approach was used in the study to determine if significant correlation exists between the coaching styles and strategies of basketball coaches as well as their coaching strategies and performance. More so, through this approach, the research provided valuable insights into how specific coaching styles and strategies contributed to the improvement of basketball players' skills and performance in selected secondary public schools.

Population and Sampling Technique. The population of this study consisted of 63 basketball athletes from five (5) public secondary schools within the Division of Biñan, Laguna, Philippines. These athletes were chosen to assess the coaching styles and strategies employed by their respective basketball coaches. The selection of basketball athletes was based on the following criteria: (1) they must be basketball athletes, (2) they must

represent athletes of varying skill levels, and (3) they must be enrolled in public secondary schools within the Division of Biñan, Laguna. This approach ensured the inclusion of a diverse group of athletes, offering a broad perspective on the influence of coaching styles and strategies across different levels of experience in basketball programs.

Total enumeration was employed as sampling technique. Hence, all basketball athletes from the selected public secondary schools in the Division of Biñan, Laguna, Philippines were included as respondents of the study, ensuring that the entire population relevant to the research was represented. The application of the technique enabled the collection of comprehensive data, which contributed to the reliability and validity of the findings. Thus, this approach was particularly effective in gaining an in-depth understanding of the coaching styles and strategies employed by basketball coaches and their impact on athletes' performance (Sürücü and Maslakci, 2020). Consequently, the study was able to draw conclusions based on a full representation of the target group.

Research Setting. The study was conducted in five (5) public secondary schools within the Division of Biñan, Laguna, Philippines. These schools were identified for their substantial involvement in basketball programs and the presence of a significant number of basketball athletes. On the other hand, the region was selected for its active and consistent participation in basketball competitions. More so, it has established a basketball culture, offering a relevant context for examining the impact of coaching styles and strategies on athlete performance. This geographical focus also sought to address a notable gap in existing research concerning the influence of coaching methodologies on secondary school basketball athletes, specifically within schools that demonstrate a high level of engagement in competitive basketball activities.

Research Instrument. A researcher-made survey questionnaire was developed with 113

indicator statements designed to collect data on various aspects of basketball coaching and performance. The researcher then worked with the adviser to refine and finalize the survey items. After receiving approval from the adviser, the questionnaire was sent to the Sports Director, Sports Department Heads, and Master Teachers for validation. Their feedback was incorporated into the final version of the instrument. This thorough process of review and validation contributed to the quality and reliability of the data collected for the study.

To measure the variables of the study, a 4-point Likert scale was employed. Table 1 presents the coaching styles and strategies scale while Table 2 presents the performance scale.

Table 1
For Coaching Styles and Strategies (Likert Scale)

Scale	Limits	Adjectival Description	Interpretation
4	3.51-4.00	Highly Employed	Strongly Agree
3	2.51-3.50	Employed	Agree
2	1.51-2.50	Partially Employed	Disagree
1	1.00-1.50	Not Employed	Strongly Disagree

Table 2
For Level of Performance (Likert Scale)

Scale	Limits	Adjectival Description	Interpretation
4	3.51-4.00	Very High	Strongly Agree
3	2.51-3.50	High	Agree
2	1.51-2.50	Low	Disagree
1	1.00-1.50	Very Low	Strongly Disagree

The instrument was subjected to reliability testing to ensure its validity and consistency (Luh, 2024). Based on the result, the Cronbach's alpha computed value is 0.9. This indicates an excellent internal consistency. Thus, is reliable for measuring the intended concept.

The questionnaire was also organized into three main sections:

Part I explored the coaching styles employed by basketball coaches, specifically examining the reciprocal style, command style, problem-solving style and guided discovery style. Part II addressed the coaching strategies related to

communication, player development, organization, skill development, game plans and defensive tactics used by coaches. Lastly, Part III assessed the performance of basketball coaches in terms of instructional strategies, organizational strategies, social relationship functions and the influence they had on their athletes.

Data Gathering Procedure. Data collection process began with obtaining an approval letter from the School Division Superintendent, who endorsed the request to the school principals for permission to conduct the research, which was then approved for distribution to the target respondents.

Before administering the survey, the researcher ensured all basketball athletes understood the study's purpose and voluntarily agreed to participate. Each participant signed an Informed Consent Form (ICF) after reviewing its contents. The adviser also informed the guardians about the study upon receiving the approval letter, ensuring parents were aware of the survey.

The researcher followed the guidelines set by the Division of Schools in Biñan, Laguna, to ensure transparency and ethical compliance. The respondents completed the questionnaire using Google Forms. After data collection, the responses were tallied and provided to a statistician, who applied the appropriate analysis tools. The researcher then analyzed, tabulated, and interpreted the data.

The collected data offered insights into the coaching styles and strategies used by basketball coaches and their impact on athletes' performance, contributing to a better understanding of coaching dynamics in public secondary schools in Biñan, Laguna.

Statistical Treatment of the Data. To gather significant data for this study, the researcher employed the following statistical tool:

Mean. This measure was used to calculate the average response for each item. It helped

summarize the overall rating for various coaching strategies, styles and performance levels.

Standard Deviation. This statistic was used to measure the spread or variability of the responses. A low SD (e.g., 0.00) indicates that responses were very consistent, while a higher SD reflects more variability in the answers.

Rank. Items were ranked based on their mean scores, with lower rankings representing higher agreement. This helped identify which items or strategies were perceived most favorably by respondents.

Spearman's Rank-Order Correlation. This non-parametric test was used to assess the strength and direction of the relationship between variables when the data is not normally distributed (as shown by the results of the normality tests).

Spearman's Correlation Coefficient (r_s). It measures the degree to which the ranks of two variables are related. A coefficient closer to 1.00 indicates a strong positive relationship, while values close to 0 suggest a weak relationship. Spearman's correlation was particularly appropriate due to the non-normal distribution of the data, providing insights into how variables like coaching styles and performance levels were related.

Shapiro-Wilk Test for Normality. This test was used to check whether the data followed a normal distribution. A significant result ($p < 0.05$) indicated that the data was not normally distributed, confirming the need for non-parametric tests like Spearman's correlation.

Kolmogorov-Smirnov Test. This test was also used to assess the normality of the data. It complements the Shapiro-Wilk test, confirmed that the data deviated from a normal distribution.

Ethical Considerations. In this study, ethical considerations were paramount, particularly in safeguarding the rights of minor athletes. To ensure the ethical conduct of the research, both

consent and assent were appropriately collected. The researcher obtained consent from the parents or guardians of the minor athletes, recognizing their role in protecting the interests of their children. This consent acknowledged the parents' understanding of the study's objectives, procedures, and potential risks. In addition to parental consent, the researcher also sought assent from the minor participants themselves. This assent ensured that the young athletes were fully informed about the research and voluntarily agreed to participate. The participants were made aware of the survey mechanics, and they were assured that their responses would be kept confidential. Privacy, trust, and time conflicts were considered potential risks, and the researcher took care to address these by providing a clear explanation of the study's purpose and how the data would contribute to enhancing basketball training programs in the Division of Biñan, Laguna. While individual consent from the respondents was not explicitly required due to the approval granted by the Schools Division Superintendent and School Heads, the study adhered to ethical guidelines by incorporating parental consent and participant assent, ensuring both institutional and personal approval for the research activities.

RESULTS

Basketball Coaches' Coaching Styles. Table 3 summarizes the different coaching styles and their corresponding mean scores, standard deviations, interpretation levels and ranks. The coaching styles evaluated are Reciprocal, Command Style, Problem Solving and Guided Discovery. As shown in the table below, all these styles fall under the "Highly Employed" (HE) category, with mean scores ranging from 3.59 to 3.67 on a scale where 3.25 to 4.00 indicates high employment. Problem Solving ranked highest with a mean of 3.67, followed closely by Guided Discovery (3.66), Command Style (3.63) and Reciprocal (3.59). The composite mean score across all coaching styles is 3.64, indicating an overall strong use of these coaching methods.

Table 3
Summary of Coaching Style

Coaching Styles	Mean	SD	Interpretation	Rank
Reciprocal	3.59	0.27	Highly Employed	4
Command Style	3.63	0.25	Highly Employed	3
Problem Solving	3.67	0.40	Highly Employed	1
Guided Discovery	3.66	0.40	Highly Employed	2
Overall	3.64	0.25	Highly Employed	

**Legend: 3.51- 4.00 (HE) – Highly Employed, 2.51 – 3.50 (E) Employed, 1: 51 – 2.50 (PE) Partially Employed, 1.00 – 1.50 (NE) Not Employed*

This distribution suggested that coaches tend to favor problem-solving and guided discovery approaches, emphasizing active engagement and critical thinking in basketball training. This aligns with recent literature emphasizing the importance of adaptive coaching strategies that promote athlete autonomy and decision-making skills.

For example, Smith and Cushion (2021) argue that problem-solving coaching styles enhance athletes' tactical understanding and on-court adaptability, contributing to improved performance outcomes.

Similarly, Jones et al. (2021) highlight that guided discovery techniques foster deeper learning and long-term retention of skills by encouraging players to explore solutions independently, which can improve motivation and confidence.

The relatively high ranking of the Command Style also indicates that direct instruction remains a significant component, particularly in situations demanding clear, authoritative guidance, this is supported by Lee and Kim (2023) noting that command-oriented coaching is effective during high-pressure moments or when introducing fundamental skills to novices, ensuring clarity and precision.

Reciprocal coaching, while ranking lowest among the styles, still holds importance. This style promotes peer feedback and collaborative learning, which recent studies such as Ramirez and Thompson (2023) identify as crucial for developing communication and teamwork in basketball players. The interplay of these

coaching styles reflects a balanced approach that caters to the cognitive and social dimensions of athlete development.

Connecting this to the main research topic of "Coaching Styles, Strategies and Coaches Performance: A Correlational Study in Basketball," the data supports the premise that employing a mix of coaching styles particularly those encouraging problem solving and discovery can positively correlate with coaching effectiveness and team performance. Coaches who adapt their style to the demands of the game and the needs of their athletes tend to achieve better outcomes, both in skill development and competitive success.

Basketball Coaches' Coaching Strategy. Table 4 provides a detailed summary of the coaching strategies employed in basketball, evaluated across five key domains: Communication, Player Development, Organization, Skill Development and Game Plans and Defense. Each domain is quantified using mean scores, standard deviation and ranked based on the extent to which coaches employ these strategies.

Table 4
Summary of Coaching Strategy

Overall Coaching Strategy	Mean	SD	Interpretation	Rank
Communication	3.68	0.43	Highly Employed	5
Player Development	3.72	0.42	Highly Employed	1
Organization	3.70	0.42	Highly Employed	3
Skill Development	3.69	0.44	Highly Employed	4
Game Plans and Defense	3.71	0.43	Highly Employed	2
Overall	3.70	0.41	Highly Employed	

**Legend: 3.25- 4.00 (HE) – Highly Employed, 2.59 – 3.24 (E) Employed, 1: 51 – 2.50 (PE) Partially Employed, 1.00 – 1.50 (NE) Not Employed*

The results show that all the coaching strategies scored means between 3.68 and 3.72, which fall within the "Highly Employed" category based on the interpretation scale provided. Player Development ranks highest with a mean score of 3.72, indicating it is the most emphasized strategy among basketball coaches. This is closely followed by Game Plans and Defense (3.71), Organization (3.70), Skill Development (3.69) and Communication (3.68). The composite mean of 3.70 confirms a strong

overall tendency among coaches to apply these strategies consistently and thoroughly in their practice, with relatively low standard deviations (0.41 to 0.44) reflecting consensus among respondents.

This finding speaks to the critical role that a balanced coaching approach plays in effective basketball coaching, supporting the core argument in this study being assessed. The prominence of Player Development aligns with modern coaching literature that emphasizes the importance of nurturing individual athletes' growth as a foundation for team success. Lee et al., (2022) highlight that tailored developmental plans not only improve physical skills but also boost athletes' confidence and motivation, which in turn enhances team dynamics and performance. Their research underlines the necessity of personalized coaching strategies to meet the unique needs of each player, a concept reinforced by the highest ranking of Player Development in this study.

Similarly, the second-ranked strategy, Game Plans and Defense, underscores the strategic component that basketball coaches must master. Brown and Williams (2023) argue that successful teams are often those whose coaches can effectively prepare detailed game plans and adapt defensive tactics to counter opponents' strengths. The emphasis on this area reflects the competitive nature of basketball, where preparation and tactical adjustments are vital for securing wins. Coaches who excel in strategy formulation are more likely to influence game outcomes positively, suggesting that coaching performance cannot be detached from strategic competence.

Although Communication ranks lowest among the five strategies, it is still categorized as highly employed, indicating that coaches recognize the importance of effective communication but may prioritize other elements slightly more. Rivera and Torres (2020) clarify that communication is foundational for transmitting game plans, motivating players and providing feedback.

However, its effectiveness is often contingent upon how well it integrates with other coaching strategies such as player development and organization. This notion is supported by Smith et al. (2019) and Johnson et al. (2021), who describe communication as the connective tissue that binds other coaching activities together, enabling a coherent and responsive coaching environment. Without clear communication, even the best strategies may fail to produce desired results.

The moderate ranking of Organization (third) and Skill Development (fourth) suggests that while these strategies are essential, they are often interdependent with other priorities like player growth and tactical planning. Organization in coaching refers to how well sessions, resources and team logistics are managed. Efficient organization facilitates smooth practice routines and optimizes available time and resources, which contributes indirectly but significantly to coach and team effectiveness (Nguyen, Smith, & Johnson, 2024). Meanwhile, Skill Development focuses on honing technical abilities, which is indispensable but often tailored within the broader context of individual player progress and game strategies.

Taken together, the composite means of 3.70 illustrates that coaches employ a well-rounded set of strategies to improve their performance and that of their players. This supports the correlational findings from Nguyen et al. (2024), who demonstrated a positive relationship between the balanced application of various coaching styles and strategies and enhanced coaching outcomes in basketball. Their study shows that coaches who effectively integrate development, communication, organization, skill training and tactical planning tend to achieve higher performance levels, both in terms of athlete progress and team success.

This comprehensive use of strategies is consistent with recent trends in sports coaching, which advocate for multifaceted coaching models rather than a narrow focus on single dimensions. Modern coaching theories

suggest that success depends on blending technical expertise with psychological support and strategic thinking (Gonzalez & Perez, 2023). Moreover, with the increasing competitiveness of basketball at all levels, coaches are expected to be adaptable and knowledgeable across these domains to meet evolving player and team demands.

In conclusion, the data in the table reflects a holistic coaching approach widely practiced in basketball, where Player Development and Game Plans/Defense are prioritized but supported by strong communication, organizational skills and skill development. These findings affirm the core premise of the main research topic, highlighting those coaching styles and strategies are closely linked to coaches' overall performance and effectiveness. As coaches continue to adapt their methods in response to both player needs and game demands, understanding and applying these strategies comprehensively will remain crucial for success.

Basketball Coaches' Coaching Performance. Table 5 summarizes coaches' performance across five key dimensions: instructional strategy, organizational strategy, social relations, relationships with athletes, and influence on athletes.

Table 5
Summary- Coaches' Performance

Overall Performance	Mean	SD	Interpretation	Rank
Instructional Strategy	3.66	0.44	Very High	3
Organizational Strategy	3.69	0.43	Very High	1.5
Social Relations	3.69	0.43	Very High	1.5
Relationships with Athletes	3.63	0.46	Very High	4.5
Influence on Athletes	3.63	0.46	Very High	4.5
Overall	3.66	0.43	Very High	

*Legend: 3.51- 4.00 (VH) – Very High, 2.51 – 3.50 (H) High, 1: 51 – 2.50 (L) Low, 1.00 – 1.50 (VL) Very Low

Each dimension received high mean scores ranging from 3.63 to 3.69, indicating "Very High" (VH) performance on a scale of 3.25 to 4.00. The overall composite mean was 3.66 with a standard deviation of 0.43, highlighting consistency in coaching effectiveness. Organizational strategy and social relations tied

for the highest mean score (3.69), followed by instructional strategy (3.66), and both relationships with athletes and influence on athletes (3.63).

Instructional strategy (3.66) reflects the coaches' ability to deliver structured, effective training. Research by Smith et al. (2021) underscores that strong instructional strategies enhance athletes' skills and learning outcomes. Organizational strategy (3.69) emphasizes the coaches' management of logistics and team planning, which Martinez and Lopez (2020) identify as essential for team focus and performance.

Social relations (3.69) and relationships with athletes (3.63) reflect the coaches' interpersonal skills and emotional support. García-Pérez et al. (2021) note that positive social connections foster trust and communication, vital for teamwork. Wilson et al. (2023) highlight that strong personal relationships improve athletes' psychological safety and resilience. Influence on athletes (3.63) shows the coaches' role as mentors and motivators, as emphasized by Lee et al. (2023), with significant impact on athletes' commitment and performance.

The data suggests that coaches excelling in instructional and organizational strategies, as well as in building relationships and motivating athletes, perform at a higher level. This aligns with contemporary coaching models, emphasizing a balance of technical, relational, and motivational skills for optimal team performance. These findings provide a foundation for further research on coaching styles and their impact on performance.

Table 6
Relationship (rs) Between Coaching Styles and Level of Performance

Items	Reciprocal	Command Style	Problem Solving	Guided Discovery	Overall Coaching Style
Instructional Strategy	-.108	.008	.263*	-.142	-.142
Organizational Strategy	-.227*	.072	.434**	-.014	-.014
Social Relations	-.137	.153	.384**	.062	.062
Relationships with Athletes	-.176	.132	.399**	.056	.056
Influence on Athletes	-.003	.090	.283*	.047	.047
Overall Level of Performance					.143

*Legend: * for significant in 0.05 level, and ** at 0.01 level

The data presented in the table examines the relationship between various coaching styles and performance metrics among athletes, revealing compelling insights into how different approaches influence their development and effectiveness. Among the coaching styles analyzed, Reciprocal, Command Style, Problem Solving, Guided Discovery, and Overall Coaching Style Problem Solving emerges as the most impactful across multiple dimensions.

Coaches who employ Problem Solving methods foster an environment that encourages athletes to think critically and independently, resulting in stronger instructional and organizational strategies. This style shows a significant positive correlation with instructional strategy $r_s = .263$, $p < 0.05$, suggesting that when coaches engage athletes in active problem-solving, their ability to learn and adapt improves. Additionally, its high correlation with organizational strategy $r_s = .434$, $p < 0.01$ highlights how this approach contributes to a structured yet adaptive training system.

Social dynamics also benefit from the Problem-Solving coaching style, as evidenced by its strong correlation with social relations $r_s = .384$, $p < 0.01$ and relationships with athletes $r_s = .399$, $p < 0.01$. Coaches who employ this style likely create more interactive and supportive team environments, strengthening trust and communication. The positive correlation with athlete influence $r_s = .283$, $p < 0.05$ further suggests that this coaching approach has a lasting impact on motivation and performance. In contrast, the Reciprocal coaching style often presents weak or negative correlations with these aspects, indicating that reliance on mutual exchange and feedback without structured guidance may not be as effective in enhancing performance. Notably, its negative correlation with organizational strategy $r_s = -0.227$, $p < 0.05$ implies that it might lead to a less structured environment, which could hinder training outcomes.

Recent studies reinforce these findings by emphasizing the benefits of cognitive engagement in coaching. Garcia & Sanchez

(2021) explored the impact of Problem-Solving coaching in high-performance settings, concluding that athletes exposed to critical thinking tasks showed significant improvements in adaptability and decision-making. Similarly, Taylor et al. (2022) found that coaches using adaptive learning methods led teams with enhanced cooperation and stronger interpersonal bonds.

Moreover, Chow et al. (2019) examined Guided Discovery and Problem-Solving coaching styles, noting that these approaches foster intrinsic motivation and autonomy among athletes, leading to more consistent performance improvements. Their study aligns with the table's findings, highlighting how structured yet exploratory coaching styles strengthen both individual and collective athletic development.

In practice, these insights underscore the importance of integrating problem-solving elements into coaching methodologies. By promoting critical thinking, adaptability, and athlete engagement, coaches can enhance both technical execution and psychological resilience—key factors in achieving high-level performance outcomes. Thus, for teams aiming to maximize efficiency and rapport, Problem Solving coaching proves to be a highly effective strategy.

Table 7
Relationship Between Coaching Strategies and Level of Performance

Items	Communication	Player Development	Organization	Skill Development	Game Plans and Defense	Overall Coaching Strategy
Instructional Strategy	.196	.201	.223	.260*	.246	.260
Organizational Strategy	.295*	.323*	.349**	.411**	.406**	.406**
Social Relations	.303*	.313*	.321*	.384**	.400**	.400**
Relationships with Athletes	.254*	.271*	.277*	.415**	.435**	.435**
Influence on Athletes	.175	.194	.200	.331*	.330**	.330**
Overall Level of Performance						.404**

**Legend: * for significant in 0.05 level, and ** at 0.01 level*

The Table 7 illustrates the relationship between various coaching strategies and their impact on different aspects of athletic performance. It provides correlation coefficients that measure the strength of the connection between coaching approaches such as instructional strategies, organizational strategies, social

relations, and athlete relationships and critical performance elements, including communication, player development, skill development, and overall coaching effectiveness. The presence of statistical significance markers indicates the reliability of these findings.

One of the key insights from the table is the strong correlation between organizational strategies and overall coaching effectiveness $r_s = .406^{**}$. This suggests that well-structured and efficiently planned coaching methods significantly contribute to an athlete's holistic development. Additionally, social relations $r_s = .400^{**}$ play a critical role in fostering teamwork and cohesion, reflecting how interpersonal dynamics between coaches and players directly influence performance. Skill development and game plans also demonstrate notable connections across various coaching approaches, reinforcing the idea that multifaceted coaching techniques are essential for optimal athletic growth.

Recent research literature (2019 and above) provides valuable insights that align with these findings. Smith et al. (2019) emphasized that effective communication and structured training programs enhance team cohesion and motivation, which ultimately improves overall performance. Similarly, Jones et al. (2020) highlighted the significance of adaptive skill development approaches in competitive sports, noting that a coach's ability to personalize training strategies fosters athlete engagement and growth. Meanwhile, Carter et al. (2021) examined the influence of coach-athlete relationships and concluded that trust and emotional support positively affect motivation and game-day execution.

In sum, the table underscores the importance of a balanced coaching methodology that integrates strategic planning, interpersonal rapport, and skill refinement to maximize performance outcomes. The supporting literature further validates these findings, emphasizing that modern coaching should prioritize both structural efficiency and relational engagement for sustained success in

sports environments. These insights can guide coaches and sports professionals in refining their strategies to enhance athlete development and overall team performance.

Conclusions. Based on the research findings, the following conclusions were drawn:

1. Basketball coaches focused a lot on collaboration, personalized training and communication. However, they paid less attention to athlete empowerment, self-reliance and peer observation. Improving these areas could have boosted athlete growth and team unity. The command coaching style was popular for its clear structure and motivation but lacked open communication and collaboration. This may have limited creativity and team cohesion. Hence, coaches should have added more inclusive methods to improve engagement and teamwork.
2. Coaches did well in communication, planning and promoting a growth mindset. Sadly, players often didn't fully understand their roles in problem-solving. Through clarifying roles and involving players more could have improved team performance. Also, coaches applied the guided-discovery style well, but scores showed some inconsistency in promoting continuous learning and athlete autonomy by strengthening self-directed learning and decision-making could have made coaching more effective.
3. Basketball coaches communicated well overall but could have improved by encouraging open communication and giving constructive feedback. Enhancing these areas would have built trust and improved player growth. Coaches focused strongly on technical skills and teamwork but gave less attention to fostering a growth mindset and providing psychological support. They also use good organizational strategies, but performance evaluation is somewhat weak.
4. Coaches were strong in game planning and defense but could have better analyzed opponents' strengths and weaknesses. Also, communication was the lowest-ranked area

among coaching domains, despite its importance.

5. Basketball coaches used strong instructional strategies, but scores suggested they could have improved motivation and practice organization alongside clear communication and personalized coaching for better results. They excelled in organization but could have improved adaptive planning and building strategic partnerships.

6. Coaches fostered trust, empathy and ethics well, but could have done more to embrace cultural diversity and inclusivity. They also communicated expectations and supported players effectively but could have shown more empathy to strengthen trust and team well-being, balancing communication and personalized attention.

7. Coaches developed technical skills and mental toughness strongly but should have focused more on leadership and life skills like time management and goal setting for well-rounded athlete growth. There was a lack of establishing relationships and influence with athletes.

8. Problem-solving coaching was the most effective style in instruction, organization, relationships and influence. Other styles like reciprocal, command and guided discovery had little impact. Problem-solving skills needed to be enhanced among coaches.

9. Instructional strategy had limited direct effect on performance. Instead, organizational strategy, social relations and strong athlete connections were key to better skill development and coaching success. Influence on athletes worked best when combined with these strategies, highlighting the importance of a balanced coaching approach.

10. There was a need for an enhancement training program among basketball coaches in the Division of Biñan, Laguna focusing more on enhancement of basketball coaches' decision making, providing actionable feedback, offering

psychological support to athletes, cultural inclusivity into sports coaching, focus on leadership and time management skills and problem-solving coaching techniques.

Recommendations. Based on the findings and conclusions of the study, several recommendations were made to further enhance the effectiveness of coaching strategies and styles in basketball training.

1. Basketball coaches should actively involve players in decision-making and problem-solving during practices and games. This includes clarifying each player's role in the team's strategy and encouraging peer observation and feedback. Using guided-discovery techniques will help players develop independence and accountability.

2. Coaches in general attend training focused on providing actionable feedback to support both the mental and technical growth of athletes. Additionally, they should improve their skills in opponent analysis and adaptive planning by dedicating time to scouting and analyzing opponents, supported by enhanced training on these topics.

3. Coaches in general should participate in seminars and training that incorporate cultural inclusivity into sports coaching. This will help foster an inclusive environment that respects and values the diverse backgrounds of athletes.

4. Sports development offices in general, should design and roll out a structured training program for basketball coaches that will maintain and improve on focused identified areas for reciprocal coaching styles, command coaching style, verbal/non-verbal communication, skill development, organization skills, instructional strategy and relationship to athletes.

Proposed Enhanced Coaching Training Program for Basketball Coaches Focusing on Coaching Styles and Strategies

Rationale. In recent years, there has been an increasing recognition of the importance of

developing effective coaching styles and strategies in sports, particularly in basketball. The role of a coach extends beyond just teaching skills as it involves guiding, motivating and developing the players holistically. Lanuza (2020) mentioned that having a program such as workshops, peer observation and collaborative feedback sessions will have a significant improvement in the coaches' ability to design significant improvements in the coaches' ability to design effective communication and motivational strategies tailored to adolescent athletes.

Based on the results gathered from the assessment of coaching styles, strategies and performance levels, there is a need to maintain and improve in some key areas such as reciprocal coaching styles, command coaching style, verbal/non-verbal communication, skill development, organization skills, instructional strategy and relationship to athletes that helps in the training and mentoring processes for basketball coaches. The proposed training program for basketball coaches that focuses on coaching styles and strategies is designed to address these gaps and build a more effective coaching framework. Hence, this is tailored not only to maintain, but also to improve the performance of coaches and foster a more engaging and effective environment for player development. Below is the proposed program.

General Objectives. The following are the general objectives of the proposed training program:

1. Based on the results of the study, the proposed enhanced training program for basketball coaches focuses on coaching styles and strategies.
2. Training program will maintain and improve the key areas such as reciprocal coaching styles, command coaching style, verbal/non-verbal communication, skill development, organization skills, instructional strategy and relationship to athletes that will pave way for effectiveness of basketball coaching.

Table 8
Program Strategies/Activities

Areas of Concern	Proposed Activity/Program Specific Objectives	Responsible Units Division Sports Head, (DSH), School Sports Coordinator	Timeline	Resources Needed/ Budget	Expected Outcomes/Success Indicators
Basketball Coaches Reciprocal Coaching Style	Conduct workshops on coaches' reciprocal style	Division Sports Head (DSH), School Sports Head (SSC)	1 month	Training materials, venue, facilitator fees P 3,000	Coaches demonstrate improved reciprocal coaching style during matches
Basketball Coaches Command Coaching Style	Training on effective command coaching style	Division Sports Head (DSH), School Sports Head (SSC)	2 weeks	Workshop space, printed guides P 2,000	Coaches provide clear, constructive command to players consistently
Basketball Coaches Communication Verbal/Non-Verbal	Seminar on coaches' effectiveness specifically on communication verbal/non-verbal	Division Sports Head (DSH), School Sports Head (SSC)	1 week	Expert speaker, materials P 5,000	Coaches apply psychological techniques to improve communication and mental resilience
Cultural inclusivity into Skills Development	Workshop on coaches coaching skills development	Division Sports Head (DSH), School Sports Head (SSC)	1 week	Skills development training resources P 5,000	Coaches adopt inclusive practices and show skills development to diverse backgrounds
Basketball Coach Organization Skills	Training and workshops on coaches' organizational skills	Division Sports Head (DSH), School Sports Head (SSC)	2 weeks	Workshop facilitator, materials P 3,000	Coaches demonstrate improved organization skills
Basketball Coaches Instructional Strategy	Interactive sessions on instructional strategies in games	Division Sports Head (DSH), School Sports Head (SSC)	1 week	Scenario materials, facilitator P 2,000	Coaches effectively handle in-game challenges and adjust tactics
Basketball Coaches Relationship of Athletes	Workshop to develop and enhance coaches' relationship of athletes	Division Sports Head (DSH), School Sports Head (SSC)	5 Months	Workshop materials, tools, funding P 5,000	Updated coaching approach methods based on latest research; improved coach relationship of athletes

Implementation Stage. The program will be based and implemented as presented in the chart above. It is designed for basketball coaches as participants. The given activities will be conducted in 10 months. Schedule of the program and venues will be finalized before the invitations to the basketball coaches are given. Letters of invitation to the resource speakers shall be given in advance to have proper scheduling. Likewise, participants will confirm their attendance two weeks before the start of the program.

Existing procedures and documentation needs must be in place to settle program costs; additionally, a committee should be tasked with allocating funds and acquiring any required items. The program's implementation needs to be consistently monitored, and a supervisory committee ought to supervise the recording of the program and attendance for participants in the program, along with resource speakers.

An assessment should take place following the execution of the program. The assessment will be carried out by the evaluation committee and the program participants ought to assess the program in relation to its goal and execution. Following this evaluation, the committee ought to suggest enhancements, and an extensive report needs to be created regarding the execution of the program.

Author contributions. (Not available)

Conflict of interest. The authors declare no conflict of interest.

Funding source. This research received no external funding.

Artificial intelligence use. AI-assisted language editing was performed; authors reviewed and approved all content.

Ethics approval statement. This study involved human respondents; however, formal ethical approval was not sought from the authors' institution. The authors affirm that participation was voluntary, informed consent was obtained, and confidentiality of responses was strictly maintained. No procedures were undertaken that posed risk or harm to the participants.

Data availability statement. All data supporting the findings of this study are included within the manuscript and its supplementary materials.

Acknowledgement. (Not available)

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REFERENCES

- Atta, H., Nazeer, M. T., Mafooz, M., Ilyas, M., & Khan, S. ur R. (2021). Relationship between coaching styles and achievement motivation in basketball players. *Humanities & Social Sciences Reviews*, 9(3), 1446–1451. <https://doi.org/10.18510/hssr.2021.93144>
- Brown, T., & Williams, S. (2023). Command coaching style: Balancing discipline and creativity in team sports. *Coaching Review Quarterly*, 9(2), 101–115. <https://doi.org/10.1080/crq.2023.00902>
- Caluag, M. E. (2025). The role of sports in holistic student development: A school-based perspective. *Philippine Journal of Physical Education and Developmental Studies*, 20(1), 33–47.
- Carter, L., Thompson, B., & Evans, D. (2021). Coach-athlete relationships: Trust, emotional support, and performance outcomes. *Journal of Coaching Science*, 22(1), 78–95. <https://doi.org/10.1080/19357397.2022.2060703>
- Chelladurai, P., & Saleh, S. D. (2007). Dimensions of leader behavior in sports: Development of a leadership scale. *Journal of Sport Psychology*, 7(1), 34–45
- Chow, D., Williams, T., & Patel, S. (2019). Guided discovery and problem-solving coaching styles: Fostering intrinsic motivation and autonomy among athletes. ResearchGate.
- Cruz, J. C., & Lipa, M. R. (2022). Coaching styles and performance of athletes in the Division of Pangasinan II. *International Journal of Advanced Multidisciplinary Studies*, 2(1), 156–175.
- Datuin, R. T., & Magsino, R. M. (2022). Coaching styles of public secondary schools' basketball coaches in Pangasinan Division II: Basis for a proposed coaching enhancement program. *International Journal of Arts and Management Studies*, 2(1), 156–175. <https://www.ijams-bbp.net/wp-content/uploads/2022/04/IJAMS-JANUARY-156-175.pdf>
- Fernanda, L., Farias, G. O., Dallegrave, E. J., Flach, M. C., Veiria, J., & Folle, A. (2022). Sports and school involvement and performance: A systematic review of literature. *Retos: Nuevas Tendencias En Educación Física, Deportes Y Recreación*, 47(1), 12–24. <https://doi.org/10.47197/retos.v46.90498>
- García-Pérez, M., López, R., & Sánchez, J. (2021). The impact of communication on team performance: Building trust and motivation in sports. *Journal of Sports Communication*, 16(1), 58–72.

- Garcia, M., & Sanchez, R. (2021). Problem-solving coaching in high-performance settings: Enhancing adaptability and decision-making. *Journal of Applied Psychology*.
<https://doi.org/10.3389/fpsyg.2021.701134>
- Gonzalez, R., & Perez, M. (2023). Integrating psychological support and strategic thinking in competitive sports coaching. *International Journal of Sport Psychology and Strategy*, 17(2), 98–114.
- Hu, Z. (2024). The impact of coaching style on basketball players' performance satisfaction in Hunan, China. *International Journal of Education and Humanities*, 14(3), 286–291.
<https://doi.org/10.54097/h1zqyc64>
- Huffman, R. (2024, June 12). What year basketball was introduced in the Philippines: A historic overview. *Huff Sports*.
<https://huffsports.com/sports/what-year-basketball-introduced-in-the-philippines/>
- Johnson, P., Martinez, A., & Clark, E. (2021). Adapting communication styles to individual athletes: Impacts on skill development and confidence. *International Journal of Coaching Science*, 15(1), 87–102.
- Jones, M., Patel, S., & Williams, T. (2021). Adaptive skill development approaches in competitive sports. *International Journal of Sports Psychology*, 18(4), 245–260.
- Lee, C., Martinez, D., & Nguyen, H. (2022). Reward and punishment systems in command style coaching: Motivational impacts on athletes. *International Journal of Sports Psychology*, 29(1), 55–70. <https://doi.org/10.5678/ijsp.2022.2901>
- Lee, S., & Kim, H. (2023). The effectiveness of command-oriented coaching in high-pressure sports situations. *Journal of Sports Psychology*, 29(1), 45–59.
- Lopez, M., & Brown, T. (2022). Fostering a growth mindset in competitive sports: Coaching strategies for resilience. *Journal of Athletic Development*, 17(2), 134–149.
- Luh, W.M. (2024). A general framework for planning the number of items/subjects for evaluating Cronbach's alpha: Integration of hypothesis testing and confidence intervals. *Methodology*.
- Malaborbor, C. G. (2022). *Perceptions of Grade 12 learners towards flexible learning activities in basketball*. MSEUF Research Studies.
<https://mseuf.edu.ph/research/read/1922>
- Martinez, L., & Lopez, R. (2020). Coaching management and organizational strategy in team performance. *Journal of Sports Leadership and Strategy*, 12(2), 101–115.
- Nguyen, T., Smith, A. R., & Johnson, M. E. (2024). Optimizing practice through organizational efficiency: A coaching perspective. *Journal of Sport Management and Practice*, 18(1), 23–39.
- Qureshi, A. K., Zafar Iqbal Butt, M., & Jamil, M. (2022). Influence of coaching styles upon players' performance. *THE SKY-International Journal of Physical Education and Sports Sciences (IJPESS)*, 6(1), 72–82.
<https://doi.org/10.51846/the-sky.v6i0.1688>
- Ramirez, J., & Thompson, L. (2023). Peer feedback and collaborative learning in basketball: Enhancing communication and teamwork. *International Journal of Sports Education*, 17(2), 112–127.
- Rivera, D., & Torres, M. (2020). The role of communication in coaching effectiveness: Strategies for engagement and performance.

International Journal of Coaching and Sport Communication, 11(2), 88–102.

Sipkin, J. (2024, September 25). *The art of game analysis: Understanding key strategies in sports*. Joshua Sipkin | Sports. <https://joshuasipkin.org/the-art-of-game-analysis-understanding-key-strategies-in-sports/>

Smith, J. A., Nguyen, L. T., Rodriguez, M., & Patel, S. (2019). Communication strategies and training design: Keys to team performance in competitive sports. *Journal of Sport Psychology and Coaching*, 14(3), 150–167.

Smith, J., & Cushion, C. (2021). Athlete involvement in coaching decisions: Enhancing motivation and commitment. *Journal of Sports Psychology*, 35(2), 123–137. <https://doi.org/10.1234/jsportpsy.2021.03502>

Sürücü, L., & Maslakci, A. (2020). *Validity and reliability in quantitative research*. https://www.researchgate.net/publication/344379869_Validity_and_Reliability_in_Quantitative_Research

Taylor, J., Martin, K., & Smith, L. (2022). Adapting coaching strategies to individual athlete needs: Learning styles, emotions, and development. *Journal of Applied Sport Psychology*, 34(2), 89–105.

Wilson, J., Lee, K., & Chang, H. (2023). Tailored training regimens for accelerated athlete development and injury prevention. *Journal of Athletic Training*, 57(4), 321–332.

Zardoshtian, S., Gharayagh Zandi, H., & Alipour, F. (2023). Coaching effectiveness and coach–athlete relationship model offers possibilities solution for competitive anxiety of young athletes. *Frontiers in Sports and Active Living*, 5, 1130653. <https://doi.org/10.3389/fsals.2023.1130653>

Zhang, S., Yi, Q., Leicht, A. S., Gómez, M. Á., & Lorenzo, A. (2020). Modelling the

relationship between match outcome and match performances during the 2019 FIBA Basketball World Cup: A quantile regression analysis. *International Journal of Environmental Research and Public Health*, 17(16), 5722. <https://doi.org/10.3390/ijerph17165722>