INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH AND ANALYSIS

ISSN(print): 2643-9840, ISSN(online): 2643-9875

Volume 09 Issue 11 November 2026

DOI: 10.47191/ijmra/v9-i11-09, Impact Factor: 8.685

Page No. 7312-7339

An Assessment of Coaching and Mentoring Assistance and Its Influence On the Performance of Student-Athletes: Basis for A Coaching Development Framework

Christine Joy I. Calatin[1], Samboy G. Nabor[2]

[1,2]University of Perpetual Help System Dalta – Las Piñas

ABSTRACT: This study assessed coaching and mentoring assistance and its relationship with the sports performance of student-athletes in the Schools Division Office of Calamba City as a basis for a Coaching Development Framework. An explanatory sequential mixed-methods design was used, beginning with surveys from 113 student-athletes and followed by interviews with nine coaches and trainers to explain the quantitative findings. Analyses used frequencies, percentages, weighted means, nonparametric difference tests with effect sizes, Spearman correlation, axial coding, and thematic clustering. Psychological assistance ranked highest (M = 3.28); other assistance domains ranged from 3.05 to 3.08. Performance was rated very good in discipline and commitment (M = 3.20), technical skills (M = 2.96), competition outcomes (M = 2.95), and fitness and conditioning (M = 2.91). Physical fitness, technical skills, and discipline differed by age (H = 9.65 to 12.39, $p \leq .022$); technical skills and competition outcomes differed by sex (U = 1141 and 1138, $p = .009$); and physical fitness and technical skills differed by competition level (H = 10.64 and 9.80, $p \leq .020$), with small to medium effects. Combined assistance and performance were associated ($\rho = .658$, $p < .001$). Survey data included imputed responses. Six themes emerged: "Coaching as a meaningful relationship that develops the person"; "Individualized learning through progressive practice and feedback"; "Sustaining confidence and belonging through supportive mentoring"; "Maintaining training continuity alongside academic and professional demands"; "Working within resource limits through adaptation and shared support"; and "Building sustainable programs through institutional support and coach development." Integrated findings linked favorable assistance ratings with continuing participation barriers. The proposed framework connects athlete assessment, institutional support, practical access, integrated coaching, performance development, and continuous monitoring. It guides coordinated stakeholder action to strengthen assistance and support sustained athlete development, with effectiveness requiring implementation and subsequent evaluation.

KEYWORDS: coaching assistance, mentoring, student-athletes, sports performance, Coaching Development Framework

I. INTRODUCTION

School sports provide a setting in which learners develop physical competence, discipline, confidence, cooperation, and the capacity to respond constructively to success and failure. For student-athletes, participation also creates opportunities to represent their schools, build social connections, and compete at higher levels. These benefits, however, depend on more than personal effort. Athletes require regular instruction, appropriate physical preparation, specific feedback, encouragement, and dependable social support. When these forms of assistance are inconsistent, students may remain committed to their sport while receiving unequal opportunities to develop.

The issue is particularly important because student-athletes differ in their access to transportation, nutrition, equipment, consistent training, and competition exposure. These conditions may affect readiness and continuity even when learners possess talent and motivation. The central concern is whether the systems surrounding athletes provide conditions in which their abilities can be developed fairly and consistently.

The present study addressed this gap through an explanatory sequential mixed-methods design. The quantitative phase first described the profile of 113 student-athletes, assessed the extent of coaching and mentoring assistance and their sports performance, examined group differences, and tested relationships between the study variables. The qualitative phase then examined the experiences and challenges described by nine coaches and trainers to explain and extend the quantitative findings.

Integration allowed the statistical patterns to be interpreted alongside the practices, meanings, and constraints surrounding assistance.

The study was aligned with SDG 3 on health and well-being, SDG 4 on inclusive quality education, SDG 5 on gender equality, SDG 10 on reduced inequalities, and SDG 17 on partnerships. Its practical contribution is a Coaching Development Framework for Student-Athletes in SDO Calamba City, with coaching and mentoring development as a central component. The framework organizes athlete assessment, institutional support, practical access, integrated coaching, performance development, and continuous monitoring. It is intended as a research-informed basis for consultation, pilot implementation, and subsequent evaluation.

Research Question

The study assessed coaching and mentoring assistance and its relationship with the sports performance of student-athletes in SDO Calamba City. It also examined how coaches and trainers described the provision and continuity of assistance. The quantitative and qualitative findings were integrated to identify strengths, gaps, and contextual conditions that informed the proposed Coaching Development Framework.

Specifically, the study answered the following questions:

1. What is the profile of the student-athletes in terms of:
    - 1.1 age;
    - 1.2 sex;
    - 1.3 type of sport, whether individual, dual, team, or combative;
    - 1.4 years of participation; and
    - 1.5 level of competition, whether school, district, division, regional, or national?
2. What is the extent of coaching and mentoring assistance provided to student-athletes in terms of:
    - 2.1 physical skills;
    - 2.2 individualized feedback and performance monitoring;
    - 2.3 psychological assistance; and
    - 2.4 social assistance?
3. What is the level of sports performance of student-athletes in terms of:
    - 3.1 physical fitness and conditioning;
    - 3.2 technical skills and competencies;
    - 3.3 discipline and commitment; and
    - 3.4 competition outcomes?
4. Is there a significant difference in the assessed sports performance of student-athletes when they are grouped according to age, sex, years of participation, and level of competition?
5. Is there a significant relationship between the extent of coaching and mentoring assistance and the sports performance of student-athletes, per sub-variable and as a whole?
6. How do coaches and trainers describe their experiences in providing coaching and mentoring to student-athletes?
7. What challenges do coaches and trainers encounter in sustaining effective coaching and mentoring programs for student-athletes?
8. Based on the integrated findings, what Coaching Development Framework may be proposed to strengthen coaching and mentoring assistance and improve the performance of student-athletes in SDO Calamba City?

II. SCOPE AND LIMITATION OF THE STUDY

The study examined coaching and mentoring assistance and sports performance among student-athletes in selected public secondary schools within SDO Calamba City during School Year 2025-2026. The quantitative strand included 113 student-athletes. It described their age, sex, sport type, years of participation, and competition level. Sport type was treated as a multiple-response profile because some athletes participated in more than one category. For this reason, sport type was described but was not used as a mutually exclusive grouping variable in the inferential comparison.

Coaching and mentoring assistance was delimited to physical skills, individualized feedback and performance monitoring, psychological assistance, and social assistance. Sports performance was delimited to physical fitness and conditioning, technical skills and competencies, discipline and commitment, and competition outcomes. The study examined perceived extent and

assessed performance using a researcher-developed survey. It did not include clinical psychological assessment, medical diagnosis, laboratory fitness testing, or independent verification of every competition result.

The qualitative strand involved nine coaches and trainers with direct experience in the participating school sports context. The interviews focused on their experiences in providing coaching and mentoring and the challenges they encountered in sustaining programs. The study did not claim that the participants represented every coach, athlete, sport, or school in the division. Their accounts were used to provide depth and context to the quantitative patterns.

The study employed an explanatory sequential mixed-methods design. Quantitative data were collected and analyzed first, and the resulting patterns guided the qualitative phase, which examined how coaches and trainers explained the practices and conditions surrounding those results. Integration occurred during interpretation and framework development. Relationships identified through Spearman correlation were interpreted as associations and not as proof that coaching assistance caused performance outcomes. The proposed Coaching Development Framework was derived from the study findings and reviewed literature. Its implementation, costing, validation as an intervention, and measurement of long-term effects were outside the scope of the completed research.

FRAMEWORK

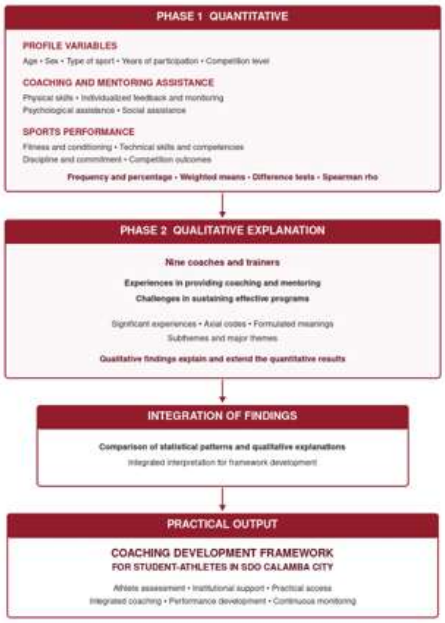


Figure 1. *Conceptual Framework of Coaching and Mentoring Assistance and Sports Performance*

The phases are connected through an explanatory sequence. Quantitative results first identify patterns of extent, performance, difference, and association. Qualitative themes then clarify the instructional practices, relationships, adaptations, constraints, and recommendations surrounding those patterns. Integration considers areas of support, elaboration, and difference in emphasis. The integrated findings then inform the Coaching Development Framework, which organizes athlete assessment, institutional support, practical access, integrated coaching and mentoring, performance development, and monitoring.

The framework does not assert that assistance causes performance. It proposes that coaching and mentoring operate within conditions that may support development and that these relationships should be examined through implementation evidence. Profile characteristics are treated as contextual information, not as deterministic explanations of ability. The arrows in the framework indicate analytical and proposed feedback pathways rather than verified causal effects.

Research Design

The study employed an explanatory sequential mixed-methods design. This design involved collecting and analyzing quantitative data first, followed by qualitative data collection and analysis to explain, clarify, and elaborate on the statistical results (Creswell & Plano Clark, 2023). The two phases were implemented in sequence and were integrated during the interpretation of the findings and the development of the proposed Coaching Development Framework. This arrangement allowed the quantitative

results to establish the principal patterns of coaching and mentoring assistance and sports performance, while the qualitative findings provided contextual explanations drawn from the experiences of coaches and trainers.

The first phase used a quantitative descriptive, comparative, and correlational research design. Frequencies and percentages were used to describe the profiles of the student-athletes. Weighted means summarized the extent of coaching and mentoring assistance provided in terms of physical skills, individualized feedback and performance monitoring, psychological assistance, and social assistance. Weighted means were also used to determine the assessed level of sports performance in terms of physical fitness and conditioning, technical skills and competencies, discipline and commitment, and competition outcomes. Nonparametric statistical tests examined differences in the assessed sports performance of student-athletes when grouped according to selected profile variables. Spearman's rank-order correlation was used to determine the relationships between coaching and mentoring assistance and sports performance, both according to their respective sub-variables and as combined measures.

The quantitative results informed the direction of the second phase. Statistical patterns, including the highest- and lowest-rated indicators, significant group differences, and relationships between coaching assistance and sports performance, served as points for qualitative explanation. The qualitative phase was therefore intended not merely to provide a separate set of findings but to clarify the practices, experiences, and program conditions that could help explain the patterns identified in the quantitative analysis.

The second phase employed a general qualitative descriptive approach. Semi-structured interviews were conducted with coaches and trainers to obtain detailed accounts of their experiences in providing coaching and mentoring assistance and the challenges they encountered in sustaining effective programs. The interviews allowed the participants to explain how coaching practices were implemented, how student-athletes' needs were addressed, and how institutional, material, academic, and personal conditions influenced the delivery of support. Recurring meanings were identified across the participants' responses while variations in their experiences and practices were preserved.

The explanatory sequential design was appropriate because the survey results could identify patterns in the assistance received and performance reported by student-athletes but could not fully explain how these patterns developed within actual school sports programs. The experiences of coaches and trainers provided the contextual information needed to interpret the quantitative results. For example, highly rated areas could be examined in relation to effective coaching practices, while lower-rated indicators could be understood in light of resource limitations, competing responsibilities, access barriers, and other conditions encountered during program implementation.

Integration occurred after the separate analysis of the quantitative and qualitative data. The findings were compared to determine how the coaches' and trainers' accounts explained, supported, extended, or provided additional context for the statistical results. Quantitative findings identified the measurable patterns of assistance and performance, whereas qualitative findings clarified the processes and conditions underlying those patterns. The integrated findings served as the empirical basis for identifying the components, priorities, and implementation considerations of the proposed Coaching Development Framework for student-athletes in SDO Calamba City.

The design was guided by a pragmatic orientation. Pragmatism allowed the researcher to select procedures according to the nature of the research questions and the usefulness of the evidence in addressing a practical educational concern. Quantitative and qualitative evidence were not treated as competing forms of knowledge. Instead, each was used for the purpose it could address most appropriately, with quantitative data establishing patterns and relationships and qualitative data explaining their meaning within the school sports context.

The design also recognized that the two phases involved different sources and units of experience. Student-athletes assessed the coaching and mentoring assistance they received and their level of sports performance, while coaches and trainers described the processes involved in providing such assistance and sustaining sports programs. Direct agreement between the two participant groups was not presumed. Their perspectives were initially analyzed separately and were subsequently connected to determine how provider experiences helped explain the patterns reported by student-athletes.

Research Instrument

Two researcher-developed instruments were used: a student-athlete survey questionnaire and a semi-structured interview guide for coaches and trainers. The survey had three substantive parts. The first collected profile information on age, sex, sport type, years of participation, and competition level. The second measured the extent of coaching and mentoring assistance across physical skills, individualized feedback and performance monitoring, psychological assistance, and social assistance. Each sub variable contained indicators describing observable or experience-based coaching practices.

The third part assessed sports performance across physical fitness and conditioning, technical skills and competencies, discipline and commitment, and competition outcomes. The performance indicators captured self-assessed functioning and participation within the school sports context. They were not substitutes for medical tests, laboratory fitness measures, or verified competition records.

The assistance and performance indicators used a four-point response scale. Composite and indicator means from 1.00 to 1.75 represented Very Low Extent for assistance; 1.76 to 2.50, Low Extent; 2.51 to 3.25, High Extent; and 3.26 to 4.00, Very High Extent. For performance, the corresponding ranges were interpreted using the verbal descriptions reported in Chapter 4, with higher values indicating more favorable assessed performance.

The semi-structured interview guide focused on the experiences of coaches and trainers in providing coaching and mentoring and the challenges they encountered in sustaining effective programs. Questions invited descriptions of instructional adaptation, feedback, motivation, relationships, scheduling, resources, institutional support, and recommendations. Follow-up probes were used when clarification or a concrete example was needed.

Survey statements were written to refer to recognizable coaching practices or athlete experiences. Items within a sub variable addressed related but nonidentical aspects so that the analysis could identify a composite pattern and the relatively highest and lowest indicators. Negatively framed items were avoided to reduce confusion in an online questionnaire administered to respondents of different ages.

Data Gathering Procedure

Permission to conduct the study was secured through the appropriate school and division channels before recruitment. School personnel assisted in identifying eligible student-athletes and potential coaches or trainers without compelling participation. The researcher explained the study's purpose, procedures, voluntary nature, confidentiality measures, and expected time requirements.

For the quantitative strand, the survey link was provided only to eligible and consenting respondents through the authorized school channels. The online form contained the profile and study indicators. Respondents completed the survey individually. The researcher monitored submissions for completeness and screened the dataset before coding and analysis.

The qualitative interviews were scheduled according to participant availability and were conducted face-to-face or through a secure online meeting platform. Before each interview, the researcher reviewed the consent provisions and requested permission to record. The guide provided a common sequence, while probes were used to clarify meanings and obtain examples. Recordings were transcribed for analysis.

The quantitative phase was conducted and analyzed first. Its principal descriptive and inferential patterns informed the direction of the subsequent qualitative phase. Interview responses were then transcribed, coded, and clustered into themes. The findings from both phases were integrated during interpretation and development of the Coaching Development Framework.

The researcher used standardized instructions when distributing the survey so that respondents received the same explanation of the task and scale. Assistance was limited to clarifying procedures and did not include suggesting answers. Submitted forms were checked for duplicate or clearly unusable records before preparation of the analytic dataset.

During interviews, the researcher followed the guide while allowing participants to elaborate on experiences that were important to them. Probes asked what occurred, how the coach responded, what conditions affected the situation, and what was learned. This approach generated examples that could be compared across participants without turning the interview into a fixed-response survey.

Data collection concluded after the quantitative respondents and qualitative participants had completed the planned procedures and the available interview material was sufficient to answer the qualitative questions. Follow-up probes were used to clarify and explain quantitative patterns without forcing agreement between the two forms of evidence.

Statistical Treatment

Survey responses were exported to a working spreadsheet, screened, and coded numerically. Profile categories were assigned documented codes. Four-point responses were coded so that higher values represented a greater extent of assistance or more favorable assessed performance. Item groupings followed the sub variables established in the instrument.

Means were computed for each respondent within every assistance and performance cluster. Combined assistance and combined performance scores were also prepared for the relationship analysis. Sport type retained multiple-response coding. A separate codebook documented variable names, response codes, groupings, and calculated fields.

Interview recordings were transcribed verbatim. Each participant was assigned a code, and identifying details were removed or generalized. Transcripts, significant excerpts, codes, formulated meanings, subthemes, and major themes were organized in a

structured coding workbook. More than one significant experience could be drawn from a single response when the participant expressed distinct ideas.

Quantitative Data Analysis

The statistical plan followed the order of the research questions. Profile variables were analyzed first because they established the composition and limits of the achieved sample. Assistance and performance were then summarized at the item and sub variable levels. Group comparisons followed the descriptive results so that significant findings could be interpreted against the size and distribution of the relevant categories. Correlation analysis was conducted last because it required the prepared assistance and performance scores.

Frequency and percentage were used to describe age, sex, sport type, years of participation, and competition level. Because sport type permitted multiple responses, its percentages were calculated against the total number of respondents and were not expected to sum to 100 percent.

Weighted means were used to summarize each assistance and performance indicator. Composite means were computed for every sub variable. The interpretation ranges defined in the instrument were applied consistently. Descriptive interpretation considered the numerical value, the verbal category, and the pattern between the highest and lowest indicators.

The Mann-Whitney U test was used for performance comparisons involving sex because it contained two independent groups. The Kruskal-Wallis H test was used for age, years of participation, and competition level because these variables contained more than two groups. These nonparametric procedures were appropriate for the coded scale data and the unequal sizes of profile groups.

Spearman's rank-order correlation was used to examine relationships between the four assistance subvariables and the four performance subvariables. Relationships involving combined assistance and combined performance were also examined. Spearman's rho was selected because it measures monotonic association using ranks and does not require the assumptions of Pearson product-moment correlation.

All inferential tests used a two-sided alpha level of .05. A probability value below .05 was interpreted as statistically significant. Effect directions and coefficient magnitudes were reported together with p values. Statistical significance was not interpreted as practical importance or causation. The absence of significance was described as insufficient evidence of a group difference within the sample, not proof that groups were identical.

Descriptive interpretation preceded inferential interpretation. This sequence ensured that readers understood the sample composition, indicator patterns, and composite means before encountering group differences or relationships. It also prevented a statistically significant result from replacing substantive examination of what had been measured.

Qualitative Data Analysis

The qualitative data were analyzed through a systematic axial coding and thematic clustering process. Analysis began with repeated reading of the transcripts to understand the context of each participant's answers. The researcher then identified significant experiences, which consisted of excerpts directly relevant to the interview question and research purpose.

Each significant experience received a descriptive axial code that captured the action, condition, relationship, response, or meaning expressed in the excerpt. When a verbatim answer contained several distinct experiences, each excerpt was recorded and coded separately. This prevented complex responses from being reduced to a single label.

Codes were compared across participants and questions. Related significant experiences were clustered, and a formulated meaning was written to express their collective significance while remaining grounded in the source excerpts. Formulated meanings were then grouped into subthemes according to shared patterns.

Subthemes were compared and organized into major themes. The analysis retained both recurrent accounts and meaningful variation. Themes addressing the experience of provision included coaching as a meaningful developmental relationship, individualized learning through progressive practice and feedback, and supportive mentoring that sustains confidence and belonging. Challenge themes addressed continuity amid academic and professional demands and adaptation within resource limits. Recommendations were organized around institutional support and coach development.

Representative excerpts were selected to show how each theme was grounded in participant voices. Excerpts were not treated as frequency counts. The discussion distinguished direct participant statements, collective thematic meaning, and researcher interpretation. The final thematic structure was checked against the coded excerpts and the full responses to confirm coherence and avoid removing statements from context.

Cross-participant comparison was conducted within each major interview question before the results were combined into broader themes. This sequence preserved the distinction between experiences of providing assistance and challenges to program continuity. Recommendation-related meanings were then examined for their relevance to the study output.

Theme boundaries were reviewed for internal coherence and external distinction. Codes concerning individualized instruction, for example, were separated from codes concerning encouragement when the excerpts emphasized different coaching actions. Where a challenge cut across an established theme, it was discussed as a crosscutting condition rather than duplicated as a new theme.

The qualitative analysis did not use the number of excerpts as a measure of importance. Some experiences were described briefly but clarified a limitation or exception relevant to the study. Such accounts were retained when they improved the accuracy of the thematic interpretation.

Mixed Methods Integration

Integration began when the quantitative findings identified areas requiring qualitative explanation and continued after the thematic analysis through a comparison matrix. The researcher aligned quantitative domains with relevant qualitative themes and examined how the interview accounts explained, supported, extended, or differed in emphasis from the statistical patterns.

Convergence was identified when survey patterns and interview accounts pointed to a similar strength or concern. Complementarity was identified when qualitative themes explained the practices or conditions surrounding a statistical result. Divergence was retained when perspectives or emphases differed; it was not removed simply to produce agreement.

The integrated interpretation informed the Coaching Development Framework. Quantitative findings identified profile patterns, relatively stronger and weaker assistance indicators, performance priorities, significant group differences, and assistance-performance relationships. Qualitative findings identified how coaching was experienced, what interrupted continuity, how coaches adapted, and what institutional support was recommended. The framework translated these findings into proposed components, responsibilities, implementation phases, and monitoring areas.

A joint comparison display was used conceptually to align the strands by research domain. Assistance means were compared with themes describing relevant coaching practices. Performance patterns were considered alongside accounts of training progression, confidence, discipline, and access. Challenge themes were aligned with lower-rated indicators and practical conditions without claiming that a theme statistically explained a mean or coefficient.

III. RESULTS

This chapter presents, analyzes, and interprets the data gathered from 113 student-athletes and nine coaches and trainers of the participating secondary schools. The results follow the order of the statement of the problem. The profile of the student-athletes is presented first, followed by the extent of coaching assistance (physical skills and individualized feedback and performance monitoring) and of mentoring assistance (psychological and social assistance), and the level of sports performance in physical fitness and conditioning, technical skills and competencies, discipline and commitment, and competition outcomes. Group comparisons are reported with their effect sizes, and Spearman correlations describe the relationships between assistance and performance. The themes drawn from the interviews then explain the quantitative results, and a joint display integrates the two strands as the basis of the proposed Coaching Development Framework.

1. On the Profile of the Student-Athletes

1.1 Age

Table 1 presents the age distribution of the student-athletes through frequencies and percentages. This profile establishes the age composition of the respondents and provides context for interpreting their assessments of coaching and mentoring assistance and their reported sports performance.

Table 1
Profile of Student-Athletes by Age

Age	Frequency	Percentage
12–13 years	5	4.42
14–15 years	54	47.79
16–17 years	41	36.28
18 years and above	13	11.50
Total	113	100.00

Table 1 shows that the respondents are concentrated in middle adolescence. The largest group is composed of athletes aged 14–15 years (f = 54, 47.79%), followed by those aged 16–17 years (f = 41, 36.28%); together, these two groups account for 84.07% of the respondents. Athletes aged 18 years and above form the third group (f = 13, 11.50%), while those aged 12–13 years form

the smallest group (f = 5, 4.42%). The findings, therefore, describe mainly athletes aged 14–17, and the five respondents aged 12–13 provide a limited basis for describing the youngest athletes. This imbalance in group sizes is taken into account when the age comparisons in Table 14 are interpreted. Age categories describe the composition of the sample; they do not measure maturity, readiness, or the quality of coaching received.

The concentration in ages 14–17 can be read through the athlete-centered perspective. Côté and Gilbert (2022) emphasized confidence and goal setting within athlete-centered coaching, while Peterson and Clark (2021) connected individualized instruction with technical mastery. These accounts support interpreting the age profile as a context for varying instructional pace, feedback, and goal negotiation.

1.2 Sex

The distribution of respondents by sex is presented in Table 2 using frequencies and percentages. This composition shows whose experiences are represented in the assessments and provides the basis for the comparison of sports performance by sex.

Table 2
Profile of Student-Athletes by Sex

Sex	Frequency	Percentage
Male	60	53.10
Female	53	46.90
Total	113	100.00

Male athletes account for 53.10% of the respondents (f = 60) and female athletes for 46.90% (f = 53), so both groups are well represented and the male group is slightly larger. This distribution allows the comparison of sports performance by sex in Table 15. The near-equal distribution, however, does not establish that training opportunities, equipment access, or competition exposure are equivalent for the two groups, because these conditions were not measured. The sex comparisons in Table 15 further show why a combined performance score may conceal differences within technical skills and competition outcomes.

Singh and Patel (2022) emphasized individualized instruction, and Nguyen and Parker (2024) linked access to suitable facilities with performance and retention. These reviewed accounts suggest that group representation should be considered alongside the conditions under which athletes learn and practice.

1.3 Type of Sport

Table 3 describes the types of sport in which the student-athletes participate, covering individual, dual, team, and combative sports. Frequencies and percentages show the representation of each category; because respondents could identify more than one sport type, the categories overlap.

Table 3
Profile of Student-Athletes by Type of Sport

Type of sport	Frequency	Percentage
Individual	35	30.97
Dual	18	15.93
Team	71	62.83
Combative	1	0.88

Note. Multiple-response item. Each frequency counts respondents selecting that sport type.

Team sports have the greatest representation (f = 71, 62.83%), followed by individual sports (f = 35, 30.97%) and dual sports (f = 18, 15.93%). Combative sports were selected by only one respondent (0.88%). Because respondents could select more than one sport type, the 113 respondents made 125 selections, and the percentages do not sum to 100. The predominance of team sports indicates that team practice and communication routines are the main contexts for applying the proposed framework; these routines, however, should accommodate athletes who also take part in individual or dual sports. The single combative selection cannot describe the needs or performance of combative athletes as a group. The sport categories therefore guide contextual adaptation and are not treated as mutually exclusive athlete identities.

This profile is relevant to the interaction between practice structure and sport demands. Johnson and Murray (2021) emphasized planned training and tactical understanding, while Singh and Patel (2022) highlighted repetitive drills and individual instruction. These ideas help interpret why a common coaching approach may require different practice activities across sport formats.

1.4 Years of Participation

The student-athletes' years of participation are summarized in Table 4 through frequencies and percentages. The distribution describes the respondents' accumulated experience in sports and provides context for interpreting performance assessments across athletes with different lengths of participation.

Table 4
Profile of Student-Athletes by Years of Participation

Years of participation	Frequency	Percentage
Less than 1 year	39	34.51
1–2 years	37	32.74
3–4 years	28	24.78
5 years or more	9	7.96
Total	113	100.00

Most respondents are in the early stages of sports participation. Athletes with less than one year of participation form the largest group (f = 39, 34.51%), followed by those with one to two years (f = 37, 32.74%); together, they account for 67.25% of the respondents. Athletes with three to four years of participation make up about one fourth of the sample (f = 28, 24.78%), while only nine respondents (7.96%) report five years or more. The results thus give more weight to athletes in earlier participation stages than to those with sustained long-term involvement. Participation duration alone does not indicate the frequency, continuity, or quality of training, and the absence of significant performance differences by participation duration in Table 16 cautions against assuming that longer involvement corresponds to better performance. Readiness is better assessed directly than inferred from years of participation.

Carter et al. (2024) associated consistent mentorship with skill retention, discipline, and continued engagement. Garcia (2023) emphasized the value of simplified but consistent training in schools with limited resources. These reviewed findings direct attention to continuity and quality of assistance within the relatively short participation histories. Two athletes with the same years of involvement may have experienced different session frequencies, instructional support, or interruptions.

1.5 Competition Level

Table 5 presents the respondents' reported levels of competition using frequencies and percentages. The school, district, division, regional, and national categories locate their sporting experience within different competitive settings and provide the groups for the later comparison of performance by competition level.

Table 5
Profile of Student-Athletes by Competition Level

Level of competition	Frequency	Percentage
School	73	64.60
District	9	7.96
Division	18	15.93
Regional	13	11.50
National	0	0.00
Total	113	100.00

School-level competition predominates (f = 73, 64.60%). Division-level competition follows (f = 18, 15.93%), then regional (f = 13, 11.50%) and district competition (f = 9, 7.96%), and no respondent reports national-level competition. The assessments are therefore situated mainly within school competition and should not be taken to describe national-level preparedness. The four represented levels define the groups compared in Table 17; the national category is excluded from that comparison because it has no respondents. The coded categories may not identify the highest level each athlete has reached, so verified competition histories would strengthen decisions about training intensity and progression.

Kumar and Lee (2024) emphasized organized competition exposure as a context for experience and resilience, while Lopez and Tan (2024) discussed skill clinics and exposure to higher competition levels. These accounts suggest that competition categories describe opportunities as well as the demands associated with participation.

2. On the Extent of Coaching and Mentoring Assistance

Consistent with the operational boundary between coaching and mentoring, the four assistance domains are presented in two groups. Coaching assistance refers to instruction-centered support that develops sport performance; it consists of physical skills (Table 6) and individualized feedback and performance monitoring (Table 7). Mentoring assistance refers to relationship-centered guidance that supports the athlete as a person; it consists of psychological assistance (Table 8) and social assistance (Table 9). The two forms are reported separately so that the results for coaching are not blended with those for mentoring. [Researcher's note: Confirm that this grouping matches the operational definitions of coaching and mentoring in the revised Definition of Terms in Chapter 1.]

2.1 Physical Skills

Physical skills assistance concerns the training support that helps student-athletes develop and refine the physical skills required by their sport. Table 6 presents the survey indicators, their weighted means and verbal interpretations, and the composite mean, allowing the specific training practices to be considered alongside the combined assessment of this dimension.

Table 6
Extent of Coaching Assistance in Physical Skills

Survey indicator	Weighted mean	Verbal interpretation
1. Coaching sessions are held regularly	3.01	High Extent
2. Training activities are organized and well-prepared.	3.04	High Extent
3. Coaching techniques used are updated and sport-specific.	3.16	High Extent
4. Training intensity matches our competitive level.	3.04	High Extent
5. Practice sessions improve performance over time.	3.15	High Extent
Composite mean	3.08	High Extent

Note. Verbal interpretation: 1.00–1.75 = Very Low Extent; 1.76–2.50 = Low Extent; 2.51–3.25 = High Extent; 3.26–4.00 = Very High Extent.

Physical skills assistance has a composite mean of 3.08, interpreted as High Extent. Updated, sport-specific techniques receive the highest indicator mean of 3.16, closely followed by perceived improvement through practice at 3.15. Regular coaching sessions receive the lowest mean of 3.01, although they remain within the same interpretation band. This pattern suggests that athletes recognize the relevance of instruction and practice while reporting somewhat less consistent session regularity. The pattern distinguishes favorable perceptions of instructional relevance from somewhat less favorable perceptions of regular opportunities to practice. The 0.15-point spread identifies a descriptive priority; it is not evidence that the indicators differ statistically or that updated techniques independently cause performance improvement.

Johnson and Murray (2021) connected well-planned training with endurance, strength, and tactical development, and Garcia (2023) emphasized consistent simplified sessions in resource-limited schools. Read alongside the item pattern, these accounts draw attention to the organization of opportunities to use relevant coaching techniques. The relatively favorable technique rating does not show how frequently those techniques are practiced, so regularity remains a distinct aspect of support. Côté and Gilbert's (2022) athlete-centered perspective also places the matching of intensity and objectives to readiness within the interpretation. The table suggests a perceived strength in instructional relevance, with less favorable ratings for consistency.

2.2 Individualized Feedback and Performance Monitoring

Individualized feedback and performance monitoring describe how coaches track progress and respond to an athlete's specific development needs. Table 7 presents the weighted means and verbal interpretations for the corresponding indicators, together with the composite mean, to show how the respondents assessed the different elements of personalized guidance.

Table 7
Extent of Coaching Assistance in Individualized Feedback and Performance Monitoring

Survey indicator	Weighted mean	Verbal interpretation
1. My coach monitors my skills and progress.	3.04	High Extent
2. I receive timely and constructive feedback.	2.91	High Extent
3. My coach helps me correct performance weaknesses.	3.11	High Extent
4. My training plan matches my ability and needs.	3.17	High Extent
5. My improvements are recognized by my coach.	3.09	High Extent
Composite mean	3.06	High Extent

Note. Verbal interpretation: 1.00–1.75 = Very Low Extent; 1.76–2.50 = Low Extent; 2.51–3.25 = High Extent; 3.26–4.00 = Very High Extent.

Individualized feedback and performance monitoring obtain a composite mean of 3.06, interpreted as High Extent. Matching training plans to ability and needs receives the highest mean of 3.17, whereas timely and constructive feedback receives 2.91, the lowest mean in this domain. Athletes thus report favorable adaptation of training but comparatively weaker feedback delivery. This distinction matters because an appropriate plan still requires clear information about current performance and the next correction to attempt. The item contrast places attention on the information athletes receive during learning, alongside their assessment of the training plan itself.

Peterson and Clark (2021) emphasized individualized technical instruction, while Lee and Brown (2024) highlighted consistent fitness monitoring. These reviewed studies provide complementary explanations for interpreting a training plan and its feedback process separately. A plan can be perceived as appropriate while athletes remain less satisfied with how quickly or clearly they receive information about progress. Côté and Gilbert (2022) also discussed goal setting within athlete-centered coaching, which makes understandable and actionable feedback relevant to the athlete's role in the learning process.

2.3 Psychological Assistance

Psychological assistance addresses the support student-athletes receive in managing pressure, maintaining confidence, and sustaining a positive approach to participation. Table 8 summarizes the corresponding survey indicators through weighted means and verbal interpretations, with a composite mean that brings together the assessments within this dimension.

Table 8
Extent of Psychological Mentoring Assistance

Survey indicator	Weighted mean	Verbal interpretation
1. My coach encourages me to perform at my best.	3.30	Very High Extent
2. I feel supported during stressful situations (e.g., losses).	3.18	High Extent
3. My coach helps build my confidence.	3.30	Very High Extent
4. My coach guides me in handling pressure during competitions	3.27	Very High Extent
5. My coach promotes a positive mindset among athletes.	3.34	Very High Extent
Composite mean	3.28	Very High Extent

Note. Verbal interpretation: 1.00–1.75 = Very Low Extent; 1.76–2.50 = Low Extent; 2.51–3.25 = High Extent; 3.26–4.00 = Very High Extent.

Psychological assistance has the highest composite mean among the four assistance domains, 3.28, interpreted as Very High Extent. Promoting a positive mindset receives 3.34, while encouragement and confidence building both receive 3.30. Support during stressful situations, including losses, receives the lowest mean of 3.18 and is interpreted as High Extent. The pattern suggests a favorable perceived motivational environment with room to make support more consistent during setbacks. The contrast places attention on support during challenging events as a distinct aspect of the otherwise favorable motivational environment. The composite mean is close to the reporting boundary of 3.26, so the verbal label should be read alongside the numerical mean. These responses describe perceived support rather than a clinical assessment of psychological well-being.

Wang and Lee (2021) placed psychological support alongside physical training in the development of resilience and motivation. Delos Santos (2023) similarly emphasized emotional and moral support within public-school mentorship. These perspectives help interpret the high encouragement, confidence, and mindset ratings as perceived relational strengths. Support during losses may demand a different form of interaction than routine encouragement, which offers a useful explanation for its comparatively lower mean. This explanation remains interpretive because the survey does not document what happens after a setback. Carter et al. (2024) further framed consistency of mentorship as relevant to engagement, directing attention to whether support persists when performance is disappointing.

2.4 Social Assistance

Social assistance reflects the availability, communication, and approachability of coaches and support personnel in the student-athletes' sporting experience. Table 9 presents the indicator weighted means and verbal interpretations, together with the composite mean, to describe the respondents' assessment of these forms of interpersonal support.

Table 9
Extent of Social Mentoring Assistance

Survey indicator	Weighted mean	Verbal interpretation
1. My coach is available for consultation outside training sessions	2.82	High Extent
2. My coach attends the majority of practices and competitions.	3.04	High Extent
3. Coaches communicate regularly with athletes.	3.19	High Extent
4. I can easily approach my coach for concerns.	3.17	High Extent
5. Support staff (assistant coaches/trainers) are available when needed.	3.06	High Extent
Composite mean	3.05	High Extent

Social assistance receives a composite mean of 3.05, interpreted as High Extent. Regular communication and approachability obtain means of 3.19 and 3.17, respectively, whereas consultation outside training receives 2.82. The 0.37-point range suggests that favorable interaction during routine contact does not necessarily translate into convenient access beyond scheduled sessions. Perceived approachability and regular communication may therefore coexist with comparatively less accessible contact beyond scheduled practice. The lower consultation score does not establish that athletes are neglected or that coaches are unwilling to help. It identifies access as an area for clarification and improvement through direct consultation with athletes and staff.

The distinction between approachability and outside-session access is consistent with the different relational and organizational aspects of different studies. Delos Santos (2023) emphasized emotional and moral mentorship, while Peters and Howard (2022) discussed coordination of training resources and assistance. A coach may be perceived as approachable when

present, yet consultation may remain difficult because schedules and contact arrangements are unclear. The survey does not test that explanation, but the pattern identifies why availability should be examined separately from communication quality. Lim and Fernandez (2024) also emphasized sustained institutional partnerships, providing a context for considering how assistance extends beyond one coach's immediate presence.

Taken together, the coaching domains—physical skills (M = 3.08) and individualized feedback and performance monitoring (M = 3.06)—have a combined mean of 3.07, while the mentoring domains—psychological assistance (M = 3.28) and social assistance (M = 3.05)—have a combined mean of 3.17; both are interpreted as High Extent. The respondents rated mentoring assistance slightly higher than coaching assistance, mainly because of psychological assistance, the only domain rated Very High Extent. The two forms of assistance also show different priorities. Within coaching, the lowest indicator is timely and constructive feedback (M = 2.91); within mentoring, it is consultation outside training sessions (M = 2.82), the lowest of the 20 assistance indicators. These two indicators identify the most specific areas for improvement in coaching and in mentoring, respectively. [Researcher's note: The combined means were computed as the average of the two domain composites, which have equal numbers of items.

3. On the Level of Sports Performance

3.1 Physical Fitness and Conditioning

Physical fitness and conditioning concern the student-athletes' reported capacity to meet the physical demands of training and competition. Table 10 presents the weighted means and verbal interpretations for the relevant performance indicators and the composite mean, providing a basis for examining the assessed strengths and less highly rated aspects of this dimension.

Table 10
Level of Sports Performance in Physical Fitness and Conditioning

Survey indicator	Weighted mean	Verbal interpretation
1. I have good strength and endurance during training.	3.00	Very Good
2. I can sustain peak performance without fatigue.	2.74	Very Good
3. I continuously improve in fitness assessments.	3.03	Very Good
4. I maintain proper diet and conditioning.	2.79	Very Good
5. I stay injury-free due to proper conditioning.	2.97	Very Good
Composite mean	2.91	Very Good

Note. Verbal interpretation: 1.00–1.75 = Poor; 1.76–2.50 = Fair; 2.51–3.25 = Very Good; 3.26–4.00 = Excellent.

Physical fitness and conditioning receive the lowest performance composite mean, 2.91, although the interpretation remains Very Good. Improvement in fitness assessments receives 3.03 and strength and endurance receive 3.00. Sustaining peak performance without fatigue receives 2.74, followed by proper diet and conditioning at 2.79. These results suggest that perceived fitness progress coexists with concerns about endurance consistency and preparation habits. Athletes may perceive progress in fitness assessments while remaining less confident about maintaining performance through sustained exertion. The responses do not establish nutrient deficiency, food insecurity, or diagnosed fatigue. The injury-free indicator is also a self-report and should not be treated as an injury surveillance measure or proof of conditioning effectiveness.

Kim and Johnson (2022) associated inadequate dietary intake with fatigue and slower recovery, while Carter and Wilson (2021) emphasized the contribution of regular conditioning to endurance and strength. These accounts provide possible contexts for the comparatively lower fatigue-resistance and preparation ratings. The table does not diagnose inadequate intake or establish a single cause for the item pattern. Lee and Brown (2024) emphasized continued monitoring, suggesting that perceived fitness improvement and sustained readiness may need to be examined separately. The pattern is best read as variation in reported aspects of conditioning rather than evidence of a single underlying physical deficit.

3.2 Technical Skills and Competencies

Technical skills and competencies describe the student-athletes' reported ability to apply and develop the techniques required by their sport. Table 11 presents the corresponding indicators, weighted means, and verbal interpretations, together with the composite mean.

Table 11
Level of Sports Performance in Technical Skills and Competencies

Survey indicator	Weighted mean	Verbal interpretation
1. I apply sport-specific skills effectively during games.	3.05	Very Good
2. My skill execution improves over time.	2.99	Very Good
3. I can perform advanced techniques when required.	2.86	Very Good
4. I adapt well to new techniques taught by my coach.	2.99	Very Good
5. I meet expectations for my sport position/role.	2.90	Very Good
Composite mean	2.96	Very Good

Note. Verbal interpretation: 1.00–1.75 = Poor; 1.76–2.50 = Fair; 2.51–3.25 = Very Good; 3.26–4.00 = Excellent.

Technical skills and competencies obtain a composite mean of 2.96, interpreted as Very Good. Applying sport-specific skills during games has the highest mean of 3.05, while performing advanced techniques has the lowest mean of 2.86. Skill execution and adaptation to new techniques both receive 2.99. The pattern suggests relatively favorable application of familiar skills alongside a need for more structured progression toward advanced execution. The item contrast separates familiar skill application from advanced execution, which may involve different degrees of complexity and learning experience. The sex difference reported in Table 15 should inform an examination of opportunities and support rather than an assumption of innate capability. These survey ratings do not substitute for direct technical assessment.

Singh and Patel (2022) and Peterson and Clark (2021) emphasized repeated drills and individualized instruction in skill development. Their accounts help explain why applying established skills may be rated more favorably than executing advanced techniques: the latter may require a different progression, greater precision, or more guided practice. Those possibilities are not measured directly. Rivas (2023) discussed aligning technical clinics with competition standards, which also draws attention to whether practice tasks prepare athletes for the techniques expected in their role. The comparatively favorable basic-application rating suggests perceived competence in familiar situations, while the lower advanced-technique rating identifies a narrower developmental area for further assessment.

3.3 Discipline and Commitment

Discipline and commitment concern the behaviors through which student-athletes sustain participation and meet their sporting responsibilities. Table 12 presents the weighted means and verbal interpretations for the corresponding indicators, including the composite mean.

Table 12
Level of Sports Performance in Discipline and Commitment

Survey indicator	Weighted mean	Verbal interpretation
1. I attend practices consistently and on time.	3.13	Very Good
2. I follow training rules and coach instructions.	3.23	Very Good
3. I maintain self-discipline even without supervision.	3.25	Very Good
4. I show commitment to improving my performance.	3.19	Very Good
5. I balance academics and sports responsibly.	3.19	Very Good
Composite mean	3.20	Very Good

Note. Verbal interpretation: 1.00–1.75 = Poor; 1.76–2.50 = Fair; 2.51–3.25 = Very Good; 3.26–4.00 = Excellent.

Discipline and commitment have the highest performance composite mean, 3.20, interpreted as Very Good. Self-discipline without supervision receives 3.25, followed by compliance with training rules and instructions at 3.23. Consistent and punctual attendance receives the lowest mean of 3.13. This profile indicates that athletes generally perceive themselves as responsible and committed, while reliable attendance remains a relative improvement area. The contrast suggests that perceived personal responsibility and practical consistency in attendance are related but distinct expressions of commitment. The attendance result does not identify the reasons for missed or late practices. Table 14 also shows that discipline varies by age in this dataset, supporting individual monitoring rather than a uniform assumption about commitment.

Gonzales and Reyes (2021) connected consistent mentoring with self-regulation. This perspective provides context for the high self-discipline and instruction-following ratings. Attendance is a distinct expression of participation because athletes may be committed while facing difficulties reaching or remaining in practice. The relatively lower attendance mean should therefore prompt attention to the conditions of participation as well as behavioral expectations, without interpreting every attendance concern as lack of motivation.

3.4 Competition Outcomes

Competition outcomes capture the student-athletes' assessments of their performance and progress in competitive settings. Table 13 presents the relevant indicators through weighted means and verbal interpretations, together with the composite mean, allowing the reported outcomes to be examined at both the individual indicator and combined dimension levels.

Table 13
Level of Sports Performance in Competition Outcomes

Survey indicator	Weighted mean	Verbal interpretation
1. I perform well during competitions.	2.89	Very Good
2. I meet or exceed performance goals mostly.	2.94	Very Good
3. I contribute positively to team success.	3.15	Very Good
4. My rankings/placements improve over time.	2.88	Very Good
5. I win awards or show measurable improvement.	2.88	Very Good
Composite mean	2.95	Very Good

Note. Verbal interpretation: 1.00–1.75 = Poor; 1.76–2.50 = Fair; 2.51–3.25 = Very Good; 3.26–4.00 = Excellent

Competition outcomes obtain a composite mean of 2.95, interpreted as Very Good. Positive contribution to team success has the highest mean of 3.15, whereas improving rankings or placements and winning awards or showing measurable improvement both receive 2.88. The pattern indicates that perceived contribution is more favorable than perceived advancement in competitive outcomes. Team contribution and competitive advancement describe different expressions of performance, so a favorable contribution rating need not coincide with similarly favorable placements or awards. Because team sports predominate and sport categories overlap, contribution to team success may carry different meanings across respondents. This item pattern should therefore be interpreted in context rather than used as a uniform measure of achievement across all sport formats.

Anderson (2021) linked competition placement with resources and coaching support, while Kumar and Lee (2024) emphasized exposure to organized competition. These accounts place competitive results within a broader context than effort or commitment alone. The higher team-contribution rating and lower advancement or awards ratings may reflect different opportunities to demonstrate success. That interpretation requires care because the survey combines awards and measurable improvement in one indicator, and competition formats vary across the sample. Villamor and Cruz (2022) also discussed school and local-government technical assistance, suggesting that competitive progress can be interpreted in relation to support conditions.

4. On the Differences in Sports Performance by Profile

4.1 Sports Performance Grouped According to Age

Table 14 examines whether assessed sports performance differs across the age groups. Group means and standard deviations describe the four performance domains, while the Kruskal–Wallis H statistics, degrees of freedom, p values, and epsilon-squared (ε^2) effect sizes provide the basis for interpreting the differences.

Table 14
Differences in Sports Performance by Age

Performance domain	12–13 years (n = 5)	14–15 years (n = 54)	16–17 years (n = 41)	18 years and above (n = 13)	*H*	*df*	*p*	ε^2	Decision
Physical fitness and conditioning	3.48 (0.56)	2.90 (0.70)	2.74 (0.55)	3.23 (0.63)	10.08	3	.018	.090	Significant
Technical skills and competencies	3.44 (0.52)	2.97 (0.73)	2.76 (0.64)	3.35 (0.55)	9.65	3	.022	.086	Significant
Discipline and commitment	3.92 (0.11)	3.24 (0.77)	3.00 (0.60)	3.37 (0.49)	12.39	3	.006	.111	Significant
Competition outcomes	3.24 (0.71)	2.90 (0.76)	2.89 (0.59)	3.26 (0.63)	4.42	3	.220	.039	Not significant

Table 14 shows significant differences across age groups in physical fitness and conditioning, H(3) = 10.08, p = .018, ε^2 = .090; technical skills and competencies, H(3) = 9.65, p = .022, ε^2 = .086; and discipline and commitment, H(3) = 12.39, p = .006, ε^2 = .111. These effects are medium in size. Competition outcomes do not differ significantly by age, H(3) = 4.42, p = .220, ε^2 = .039. The null hypothesis of no significant difference in sports performance according to age is therefore rejected for physical fitness and conditioning, technical skills and competencies, and discipline and commitment, but not for competition outcomes.

In the three significant domains, the youngest (12–13 years) and oldest (18 years and above) groups have the highest means, while the 16–17 group has the lowest: physical fitness (3.48 and 3.23 vs. 2.74), technical skills (3.44 and 3.35 vs. 2.76), and discipline (3.92 and 3.37 vs. 3.00). The pattern is U-shaped rather than a steady decline with age. The 12–13 group, however, has only five respondents, and its discipline mean of 3.92 (SD = 0.11) is close to the upper limit of the scale, so its high ratings depend on a small number of athletes. Because the Kruskal–Wallis test is an omnibus test, it does not identify which pairs of age groups differ, and the results should not be read as evidence that one age group differs from every other group.

Gonzales and Reyes (2021) linked mentoring with self-regulation, and Carter et al. (2024) linked consistent mentorship with discipline; these studies situate discipline within the athlete's interaction with coaching rather than treating it as a fixed attribute of age. Côté and Gilbert (2022) emphasized athlete-centered goal setting, which supports matching expectations, training load, and technical tasks to individual readiness. The interviews offer a related explanation: coaches described adjusting drills to athletes' readiness (Subtheme 3) and reported that examinations, school events, and fatigue interrupt training during busy school periods (Subtheme 9). These conditions may affect athletes at different stages of schooling in different ways, although the survey did not measure them directly.

4.2 Sports Performance Grouped According to Sex

The comparison of assessed sports performance by sex is presented in Table 15. Means and standard deviations describe the ratings for each performance domain, and the Mann–Whitney U statistics, p values, and effect sizes (r) indicate whether and how much the two groups differ.

Table 15
Differences in Sports Performance by Sex

Performance domain	Male (n = 60)	Female (n = 53)	U	p	r	Decision
Physical fitness and conditioning	3.00 (0.68)	2.80 (0.62)	1331	.135	.140	Not significant
Technical skills and competencies	3.13 (0.65)	2.76 (0.70)	1141	.009	.243	Significant
Discipline and commitment	3.25 (0.64)	3.15 (0.80)	1527	.713	.034	Not significant
Competition outcomes	3.11 (0.69)	2.77 (0.66)	1138	.009	.245	Significant

Table 15 shows significant differences by sex in technical skills and competencies, U = 1141, p = .009, r = .243, and competition outcomes, U = 1138, p = .009, r = .245. In both domains, male athletes have higher means than female athletes (3.13 vs. 2.76 and 3.11 vs. 2.77), and the effects are small. Physical fitness and conditioning, U = 1331, p = .135, r = .140, and discipline and commitment, U = 1527, p = .713, r = .034, do not differ significantly. The null hypothesis is therefore rejected for technical skills and competition outcomes and is not rejected for physical fitness and discipline. The differences are specific to technical and competitive domains rather than a general separation of male and female performance. Both groups show variation within their ratings, so group means should not define expectations for individual athletes. Opportunities for advanced practice, sport composition, competitive exposure, access to support, and self-assessment are possible contexts, but none was isolated in the comparison.

Peterson and Clark (2021) emphasized individualized technical instruction, and Rivas (2023) discussed competition-aligned technical drills. Anderson (2021) and Nguyen and Parker (2024) placed performance within coaching and resource contexts. These perspectives support interpreting the sex findings through potentially different development conditions rather than assuming inherent ability. The survey does not establish unequal access, so that possibility remains a question for contextual assessment. The reviewed literature also distinguishes technical learning from the conditions under which athletes demonstrate it, helping explain why skills and competition outcomes may show related but separate patterns.

4.3 Sports Performance Grouped According to Years of Participation

Table 16 compares the four performance domains according to the student-athletes' years of participation. Group means and standard deviations describe the ratings in each category, while the Kruskal–Wallis H statistics, degrees of freedom, p values, and ε^2 effect sizes support the interpretation of differences.

Table 16
Differences in Sports Performance by Years of Participation

Performance domain	Less than 1 year (n = 39)	1–2 years (n = 37)	3–4 years (n = 28)	5 years or more (n = 9)	H	df	p	ε^2	Decision
Physical fitness and conditioning	2.82 (0.62)	2.95 (0.75)	3.01 (0.57)	2.78 (0.73)	1.57	3	.666	.014	Not significant
Technical skills and competencies	2.90 (0.66)	3.04 (0.76)	3.00 (0.54)	2.76 (1.04)	1.82	3	.612	.016	Not significant
Discipline and commitment	3.10 (0.67)	3.37 (0.71)	3.22 (0.57)	2.89 (1.16)	4.38	3	.223	.039	Not significant
Competition outcomes	2.79 (0.65)	3.06 (0.78)	2.97 (0.59)	3.09 (0.75)	3.94	3	.268	.035	Not significant

Table 16 shows no significant difference in sports performance by years of participation: physical fitness, H(3) = 1.57, p = .666, ε^2 = .014; technical skills, H(3) = 1.82, p = .612, ε^2 = .016; discipline, H(3) = 4.38, p = .223, ε^2 = .039; and competition outcomes, H(3) = 3.94, p = .268, ε^2 = .035. All effects are small, and the null hypothesis is not rejected for any domain. The means do not increase consistently across participation categories. Athletes with one to two years have the highest technical and discipline

means (3.04 and 3.37), those with three to four years have the highest fitness mean (3.01), and those with five years or more have the highest competition outcome mean (3.09).

Participation duration summarizes experience broadly and may conceal differences in continuity, intensity, and access to instruction. An athlete with several years of involvement may have experienced irregular training, while a recent participant may have received frequent and organized assistance. These remain possible explanations because training histories are not documented in this comparison. The five-or-more-years group contains nine athletes and has the largest standard deviations in technical skills (1.04) and discipline (1.18). The nonsignificant results indicate that the reported distributions do not separate reliably by these categories; they do not establish that experience lacks developmental value. The mixed ordering of the means also suggests that duration alone is an incomplete description of the conditions under which competence develops.

Carter et al. (2024) emphasized consistency of mentorship, and Garcia (2023) emphasized simplified but sustained training. Johnson and Murray (2021) focused on training organization rather than elapsed participation time alone. These perspectives help explain why broad duration categories may not capture the assistance conditions most relevant to skill progression. Kumar and Lee (2024) discussed organized competition exposure as another context for development, distinguishing time spent in sport from the opportunities available during that time. The present pattern can therefore be read alongside the reviewed importance of purposeful experience without treating years of participation as its direct measure.

4.4 Sports Performance Grouped According to Level of Competition

Table 17 compares the four performance domains across the competition levels represented in the sample. Group means and standard deviations summarize each domain, while the Kruskal–Wallis H statistics, degrees of freedom, p values, and ε^2 effect sizes indicate the evidence for differences across competitive settings.

Table 17

Differences in Sports Performance by Competition Level

Performance domain	School (n = 73)	District (n = 9)	Division (n = 18)	Regional (n = 13)	H	df	p	ε²	Decision
Physical fitness and conditioning	2.84 (0.64)	2.47 (0.83)	3.31 (0.57)	3.03 (0.47)	10.64	3	.014	.095	Significant
Technical skills and competencies	2.94 (0.68)	2.36 (0.93)	3.29 (0.64)	3.05 (0.44)	9.80	3	.020	.088	Significant
Discipline and commitment	3.19 (0.60)	2.58 (1.02)	3.50 (0.66)	3.26 (0.53)	7.74	3	.052	.069	Not significant
Competition outcomes	2.89 (0.68)	2.58 (0.79)	3.20 (0.72)	3.18 (0.49)	7.47	3	.058	.067	Not significant

Table 17 shows significant differences by competition level in physical fitness and conditioning, $H(3) = 10.64$, $p = .014$, $\varepsilon^2 = .095$, and technical skills and competencies, $H(3) = 9.80$, $p = .020$, $\varepsilon^2 = .088$, both medium effects. Discipline and commitment, $H(3) = 7.74$, $p = .052$, $\varepsilon^2 = .069$, and competition outcomes, $H(3) = 7.47$, $p = .058$, $\varepsilon^2 = .067$, do not reach significance, although their effect sizes are of similar magnitude. The null hypothesis is therefore rejected for physical fitness and technical skills and is not rejected for discipline and competition outcomes. Division-level athletes have the highest means in all four domains (3.31, 3.29, 3.50, and 3.20), and district-level athletes have the lowest (2.47, 2.36, 2.58, and 2.58).

The fitness and technical differences suggest that reported readiness and execution vary across the competition contexts represented in the manuscript. However, the descriptive means do not form a simple progression from school to regional participation, because division means are highest and district means are lowest. An omnibus difference does not determine which pairs differ, so the table does not establish a specific division-versus-district contrast without a follow-up result. The nonsignificant discipline and competition outcomes also indicate that the reported differences should not be extended to all performance dimensions. Competition categories may combine different training opportunities, selection processes, and exposure histories, which are not isolated by the comparisons.

Kumar and Lee (2024) and Lopez and Tan (2024) emphasized organized competition exposure and development opportunities. Ramos (2023) discussed the role of organized division assistance, while Johnson and Murray (2021) emphasized structured training. These accounts provide contexts for interpreting why fitness and technical readiness might vary across competition settings.

5. On the Relationship Between Coaching and Mentoring Assistance and Sports Performance

Table 18
Spearman Correlations Between Coaching and Mentoring Assistance and Sports Performance

Assistance domain	Physical fitness	Technical skills	Discipline and commitment	Competition outcomes	Overall performance
Coaching assistance					
Physical skills	.534*	.483*	.507*	.500*	.566*
Individualized feedback and performance monitoring	.599*	.608*	.516*	.552*	.655*
Mentoring assistance					
Psychological	.594*	.567*	.536*	.585*	.605*
Social	.588*	.604*	.550*	.575*	.649*
Overall coaching and mentoring assistance	.624*	.597*	.555*	.566*	.658*

Table 18 presents the Spearman rank correlations between coaching and mentoring assistance and assessed sports performance. The matrix includes the four dimensions of each construct and their ratings as a whole, with correlation coefficients and p-values that describe the direction, strength, and statistical significance of the reported relationships.

Table 18 shows positive and significant correlations for every assistance–performance pairing (all $p < .001$). The combined assistance and performance scores have $\rho = .658$, a large effect; the two sets of ranks share about 43% of their variance ($\rho^2 = .433$). Among the 16 pairings of subvariables, coefficients range from $\rho = .483$ for physical skills assistance and technical skills, the only medium effect, to $\rho = .608$ for individualized feedback and performance monitoring and technical skills; all other coefficients exceed .50 and are large. For assistance as a whole, coefficients are .624 with physical fitness, .597 with technical skills, .555 with discipline, and .566 with competition outcomes. For performance as a whole, the coaching domains have coefficients of .566 (physical skills) and .655 (individualized feedback and performance monitoring), and the mentoring domains have .605 (psychological) and .649 (social). Because one coaching domain and one mentoring domain have the two highest coefficients, neither form of assistance alone accounts for the pattern. The null hypothesis of no significant relationship between coaching and mentoring assistance and sports performance is therefore rejected for all pairings.

The positive pattern indicates that athletes reporting greater assistance also tend to report higher performance. Its presence across every dimension suggests that perceived support is related to several aspects of sporting development. Feedback and monitoring have the largest subvariable coefficient with technical skills, but the similar social–technical coefficient of .604 does not establish a difference in their importance. The lowest subvariable coefficient remains positive, indicating variation in association strength within a generally favorable pattern.

Peterson and Clark (2021) linked individualized instruction with technical mastery, while Singh and Patel (2022) emphasized guided drills and individualized learning. These accounts provide a context for the feedback–technical association. Wang and Lee (2021) and Delos Santos (2023) emphasized psychological and moral support, helping interpret why relationships extend beyond physical instruction. Carter et al. (2024) discussed mentorship, retention, and discipline, and Anderson (2021) placed competitive development within coaching and resource conditions.

Assistance and performance are assessed through the same respondent's survey, making shared perceptions a possible context for their relationship. Higher-performing athletes may evaluate their coaches more positively, and other conditions may influence both assessments.

6. On the Experiences of Providing Coaching and Mentoring to Student-Athletes

The qualitative findings address the experiences of coaches and trainers in providing coaching and mentoring to student-athletes and the challenges they encounter in sustaining these programs. They extend the preceding statistical presentation by describing the practices, relationships, and school conditions associated with the assistance being assessed.

Responses from nine participants, identified as Participants A through I, describe technical guidance, individualized support, motivation, evaluation, and the personal meaning of mentoring. Across the full interview dataset, 108 participant-question responses yielded 329 significant excerpts, which were assigned axial codes and clustered into 38 formulated meanings, 15 subthemes, and six major themes. Three of these major themes, comprising eight subthemes, directly address the experience of providing assistance. They offer practical context for the physical, individualized feedback and monitoring, psychological, and social domains presented in Tables 6–9 and for the dimensions of sports performance in Tables 10–13.

Major Theme T1 Coaching as a meaningful relationship that develops the person. Coaching is experienced as involvement in the athlete's development, with satisfaction attached to sporting progress, character growth, and relationships that continue beyond competition.

Major Theme T2 Individualized learning through progressive practice and feedback. Coaches describe a learning process that recognizes individual needs, builds skills through guided practice, and uses observation and feedback to determine the next adjustment.

Major Theme T3 Sustaining confidence and belonging through supportive mentoring. Encouragement, listening, reassurance, trust, and peer support are described as ways of sustaining athletes' willingness to learn and their sense of belonging within the team.

Table 19 presents the eight subthemes under the three major themes. For each subtheme, the table gives a description of the collective meaning, a representative verbatim statement from the participants, and the quantitative domain to which the subtheme relates. The related domains are interpretive links between the two strands; they do not establish that the interviews account for a particular correlation or group difference.

Table 19

Emergent Themes and Subthemes on the Experiences of Providing Coaching and Mentoring

Subtheme	Description	Representative verbatim statement	Related quantitative domain
Major Theme 1: Coaching as a Meaningful Relationship That Develops the Person			
1. Fulfillment through shared growth and continuing relationships	Fulfillment is associated with accompanying athletes through difficulty and witnessing sporting and personal growth.	"Seeing them improve and grow both in sports and in life is truly rewarding." (Participant A)	Psychological assistance (Table 8); discipline and commitment (Table 12)
2. Character development extending beyond competition	Character, educational progress, and continuing relationships extend the meaning of mentoring beyond competitive results.	"Seeing them grow into responsible and resilient people is as important as winning competitions." (Participant D)	Social assistance (Table 9); discipline and commitment (Table 12)
Major Theme 2: Individualized Learning Through Progressive Practice and Feedback			
3. Responding to individual abilities and learning needs	Differences in ability, pace, personality, and confidence inform personal goals, differentiated tasks, and communication.	"Each athlete learns, responds, and develops differently" (Participant F)	Individualized feedback and monitoring (Table 7)
4. Building skills through structured practice and targeted correction	Demonstration, progressive drills, and repeated correction respond to specific technical difficulties.	"give simple corrections and let them practice repeatedly" (Participant H)	Physical skills (Table 6); technical skills (Table 11)
5. Evaluating and adjusting coaching through progress and feedback	Performance, participation, behavior, and feedback inform evaluation and adjustment; reported measurement practices vary.	"compare their performance before and after training" (Participant I); "No measurement" (Participant C)	Feedback and monitoring (Table 7); performance (Tables 10–13)
Major Theme 3: Sustaining Confidence and Belonging Through Supportive Mentoring			
6. Maintaining motivation and confidence through encouragement	Attainable goals, recognition, and encouraging correction support confidence and continued effort.	"celebrating small improvements to build confidence and sustain motivation" (Participant G)	Psychological assistance (Table 8); discipline and commitment (Table 12)
7. Learning from setbacks through reflection and emotional support	Reflection on mistakes is combined with listening, reassurance, and time to process disappointment.	"feel supported and know that I believe in them, win or lose" (Participant H)	Psychological assistance (Table 8); competition outcomes (Table 13)
8. Trust, inclusion, and peer support within the team	Trust, respect, inclusion, and peer encouragement situate individual development within team relationships.	"Building trust takes time" (Participant E)	Social assistance (Table 9); discipline and commitment (Table 12)

The formulated meaning situates individual progress within the relationships of the team. Trust and mutual respect make assistance relational, while peer encouragement extends support beyond the coach. Participant E's observation that trust takes time indicates that belonging is developed through continuing interactions. Participant G's references to disagreement and resistance qualify the supportive picture by showing that cooperation cannot simply be assumed. This narrative gives context to social assistance in Table 9 and discipline and commitment in Table 12, where participation occurs within shared expectations and relationships.

Delos Santos (2023) emphasizes the motivational value of emotional and moral support in public-school mentoring. Carter et al. (2024) discuss sustained mentorship and engagement, and Côté and Gilbert (2022) bring an athlete-centered perspective to the guidance being provided. The accounts add that support can be distributed through the team but must be developed patiently. The insight is that a socially supportive environment is part of the work coaches describe, with trust, inclusion, and communication helping create conditions in which individual feedback can be received and practiced.

Across the eight subthemes, participants describe coaching as a relationship through which technical development, confidence, character, and continuing engagement are pursued together. Participants H and I give specific accounts of diagnosing and correcting technical difficulties, while Participants D and G show how recognition and responsibility accompany learning. Participants A and C emphasize the personal meaning of the relationship in different ways. These voices converge on sustained attention to the learner, but differ in the examples, time horizons, and evaluation practices they describe. The differences preserve the breadth of experience without requiring every participant to express every element of each theme.

The qualitative strand gives the survey domains a practical setting: physical instruction occurs through guided attempts; individualized support involves adjusting tasks and communication; psychological assistance includes encouragement and

listening; and social assistance develops through trust and peer relationships. These connections help interpret the positive assistance–performance associations already presented in Table 18 as relationships between broad assessments that encompass several interacting practices. They do not establish the independent contribution of a particular practice or a causal pathway. The central experiential pattern is the connection between instructional guidance and continuing personal support, with fulfillment attached to accompanying the athlete's development.

7. On the Challenges in Sustaining Coaching and Mentoring Programs for Student-Athletes

The participants' accounts identify competing academic and professional responsibilities, financial and material constraints, differences in learners' needs, changing motivation, and interpersonal demands. Three major themes organize the challenges and the responses to them: maintaining training continuity alongside academic and professional demands, working within resource limits, and building sustainable programs through institutional support and coach development. Challenge-related meanings also occur within the earlier themes of individualized learning and supportive mentoring; these are shown as cross-cutting subthemes in Table 20. The sixth theme is drawn from the participants' recommendations (Interview Question 12) and describes the conditions they consider necessary to sustain coaching and mentoring programs.

Major Theme T4 Maintaining training continuity alongside academic and professional demands. Continuity is negotiated within athletes' academic and family commitments and coaches' teaching or ancillary duties. Flexible schedules, workload adjustments, and coordination are described as responses to restricted time and participation.

Major Theme T5 Working within resource limits through adaptation and shared support. Equipment, facility access, funding, and practical competition needs shape the opportunities available. Coaches describe improvisation, efficient resource use, sponsorship, and school or community support as ways of maintaining provision.

Major Theme T6 Building sustainable programs through institutional support and coach development. The participants' recommendations connect continuing coach education with practical resources, shared responsibility, structured mentoring, and sustained evaluation as the support system needed for long-term athlete development.

Table 20 presents the subthemes under Major Themes 4 to 6 with representative verbatim statements, together with the cross-cutting subthemes from Major Themes 2 and 3 that also describe challenges.

Table 20

Emergent Themes and Subthemes on the Challenges in Sustaining Coaching and Mentoring Programs

Subtheme	Description	Representative verbatim statement	Related quantitative domain
Major Theme 4: Maintaining Training Continuity Alongside Academic and Professional Demands			
9. Competing responsibilities restrict time and participation	Academic, family, teaching, and ancillary responsibilities restrict attendance, readiness, practice time, and individual attention.	"training gets interrupted because of exams, school events, or other commitments" (Participant H)	Physical skills (Table 6); fitness and conditioning (Table 10)
10. Flexible coordination sustains balanced participation	Schedules, workloads, and communication are adjusted to maintain sport participation alongside educational responsibilities.	"coordinate the training schedule with the academic calendar" (Participant I)	Individualized feedback and monitoring (Table 7); discipline and commitment (Table 12)
Major Theme 5: Working Within Resource Limits Through Adaptation and Shared Support			
11. Funding, equipment, and facility access shape training opportunities	Funding needs, insufficient equipment, shared venues, and maintenance conditions constrain practice and competition access.	"the available equipment is insufficient for the number of athletes, which limits opportunities for hands-on practice and skill development" (Participant I)	Physical skills (Table 6); technical skills and competition outcomes (Tables 11, 13)
12. Resourcefulness and partnerships sustain coaching provision	Improvisation, efficient use of equipment, sponsorship, and partnerships maintain activity within continuing material limits.	"improvise when appropriate, organize athletes into groups for efficient use of equipment" (Participant I)	Physical skills and social assistance (Tables 6, 9)
Major Theme 6: Building Sustainable Programs Through Institutional Support and Coach Development			
13. Continuous coach education and practical resourcing	Continuing coach education is linked with the facilities, equipment, funding, training time, and competition support needed to apply it.	"continuous coaching education and professional development" (Participant E)	Physical skills and individualized feedback (Tables 6, 7)
14. Shared responsibility for structured athlete mentoring	Coordinated support across the school, families, and community provides regular mentoring for personal, social, emotional, and academic development.	"coordination among coaches, teachers, parents, school administrators, and community partners" (Participant I)	Psychological and social assistance (Tables 8, 9)
15. Sustained development and progress evaluation	Long-term commitment, development beyond the next competition, and regular monitoring sustain support over time.	"long-term athlete development rather than only preparing students when a competition is already near" (Participant H)	Feedback and monitoring (Table 7); performance (Tables 10–13)
Cross-Cutting Challenges Within Major Themes 2 and 3			
3. Responding to individual abilities and learning needs	Differences in learning pace, skill, personality, and confidence require continuing personal guidance within available time.	"advanced athletes require more challenging drills, while beginners need extra guidance and encouragement" (Participant G)	Individualized feedback and monitoring (Table 7)
5. Evaluating and adjusting coaching through progress and feedback	Accounts of observation and feedback contrast with no reported measurement, raising a question about comparable evidence of progress.	"No measurement" (Participant C)	Feedback and monitoring (Table 7); performance (Tables 10–13)
6. Maintaining motivation and confidence through encouragement	Motivation and confidence must be sustained after losses and through periods with few competitive opportunities.	"Never give up" (Participant C)	Psychological assistance (Table 8); discipline and commitment (Table 12)
8. Trust, inclusion, and peer support within the team	Coaches balance individual needs with shared team goals while responding to disagreement and resistance to feedback.	"Building trust takes time" (Participant E)	Social assistance (Table 9); discipline and commitment (Table 12)

The three accounts are complementary rather than identical. Participant H describes the time horizon of development, Participant D the commitment needed to sustain it, and Participant I the evidence used to guide it. Together they describe a program that continues between competitions and uses regular evaluation to respond to athletes' changing needs. This recommendation connects with Subtheme 5, where evaluation practices varied and one participant reported no measurement,

and with the performance monitoring indicators in Table 7. Because only three participants contributed to this subtheme, it is presented as a focused recommendation rather than a widely shared account.

Lee and Brown (2024) emphasize continuing fitness monitoring, and Carter et al. (2024) associate consistent mentorship with skill retention, discipline, and continued engagement. Johnson and Murray (2021) stress planned training rather than short-term preparation. The participants' recommendations apply these ideas to program design: sustained development requires both continuity of support and a regular basis for judging progress.

Across Subthemes 13 to 15, the participants' recommendations describe the support system they consider necessary for long-term athlete development: continuing coach learning, dependable resources, shared responsibility for mentoring, and regular evaluation. These recommendations correspond to Components 2 and 6 of the proposed framework. They describe priorities that the coaches seek, not outcomes already demonstrated by a new program.

Across the challenge-related subthemes, continuity depends on the interaction of time, resources, personal attention, and relationships. Participants D and H connect interrupted training with school and professional duties; Participants E and I connect attendance with academic and family commitments; and Participant G adds fatigue and restricted individualized attention. Equipment and venue accounts identify further limits on what can be practiced within the time available. The voices converge on the need to sustain assistance under changing conditions, while differing in the constraint emphasized and the response attempted.

The responses also retain variation. Participant C reports no challenges, no perceived academic effect, and no equipment issues, while other participants describe detailed restrictions and adjustments. The brevity of that account does not explain the difference and cannot support assumptions about better funding, lighter workload, or program quality. Taken together, the narratives give practical context to the assistance and performance domains without replacing the statistical findings.

8. Proposed Coaching Development Framework to Strengthen the Support System and Improve the Performance of Student-Athletes

8.1 Integration of the Quantitative and Qualitative Findings

Consistent with the explanatory sequential design, the quantitative results were connected with the qualitative themes through a joint display (Creswell & Plano Clark, 2023). Table 21 aligns each principal quantitative result with the themes that explain it, states the resulting meta-inference, and identifies the framework component that responds to it. Convergence means that both strands point to the same strength or concern; complementarity means that the themes explain the conditions behind a statistical result; and divergence means that the strands differ in emphasis, a difference that was retained rather than resolved.

Table 21

Joint Display of Quantitative Results, Qualitative Themes, and Meta-Inferences

Quantitative result	Qualitative theme and evidence	Meta-inference	Framework response
Psychological assistance has the highest composite mean (M = 3.28); support during stressful situations is its lowest indicator (M = 3.18).	T3, Subthemes 6 and 7: encouragement, recognition of small improvements, and time to process losses	Convergence: both strands identify motivational support as a strength. The themes explain support after setbacks as a separate process that requires listening and time.	Component 4: pre- and postcompetition mentoring conversations
Timely and constructive feedback is the lowest coaching indicator (M = 2.91), yet individualized feedback has the highest correlation with overall performance (p = .655).	T2, Subthemes 4 and 5: diagnosis, simple correction, and repetition; "No measurement" (Participant C)	Complementarity and divergence: coaches describe correction routines, but monitoring is not standardized, which may explain the lower rating for timely feedback.	Components 4 and 6: feedback routine and progress records
Regular sessions (M = 3.01), attendance (M = 3.13), and sustaining performance without fatigue (M = 2.74) are the lowest indicators in their domains; self-discipline is high (M = 3.25).	T4, Subthemes 9 and 10: examinations, school events, teaching and ancillary duties, and fatigue interrupt training	Convergence: interruptions are linked with competing responsibilities rather than weak commitment.	Component 3: training calendar coordinated with the academic calendar
Consultation outside training is the lowest assistance indicator (M = 2.82), while communication (M = 3.19) and approachability (M = 3.17) are high.	T4, Subtheme 9: coaches' teaching and ancillary duties; T3, Subtheme 8: trust takes time	Complementarity: limited access outside sessions is linked with coaches' workload rather than unwillingness to help.	Component 4: consultation schedule and designated contact person
Advanced techniques are the lowest technical indicator (M = 2.86); fitness and technical skills differ by age and competition level, and technical skills and competition outcomes differ by sex.	T5, Subthemes 11 and 12: insufficient equipment, shared venues, and funding for transport and competition	Complementarity (interpretive): access to equipment, venues, and competition exposure may shape opportunities for advanced practice; this link was not tested statistically.	Components 2 and 3: institutional support and equitable access
All assistance–performance correlations are positive and significant (p = .483 to .658).	T1 to T3: coaching combines instruction with continuing personal support	Convergence: both strands present the assistance domains as connected; neither strand establishes causation.	Components 4 and 5: integrated assistance linked to the four performance domains
Regular sessions (M = 3.01), timely feedback (M = 2.91), and consultation outside training (M = 2.82) are the lowest indicators in their assistance domains.	T6, Subthemes 13 to 15: continuous coach education and resourcing, shared responsibility for structured mentoring, and sustained progress evaluation	Expansion: the participants' recommendations extend the survey results to the program conditions needed to sustain assistance.	Components 2 and 6: coach development and continuous monitoring

The joint display shows that the two strands agree on the main strengths and concerns. The athletes rated psychological assistance and their own discipline highly, and the coaches described encouragement, trust, and recognition of effort as central to their work. The lowest-rated indicators—timely feedback, consultation outside training, regular sessions, attendance, and sustained performance without fatigue—correspond to the conditions that coaches described as difficult to maintain: monitoring that is not standardized, competing teaching and ancillary duties, academic demands, and limited equipment and venues. The qualitative strand thus explains why favorable assistance ratings coexist with lower ratings for regularity and access: the assistance is valued, but the conditions for delivering it consistently are uneven.

Divergence is also retained. Participant C reported no challenges, no equipment issues, and no measurement of progress, while the other participants described detailed constraints and monitoring routines. The survey, which reflects the athletes' perspective, and the interviews, which reflect the coaches' perspective, therefore do not always describe the same conditions. These integrated findings form the basis of the framework components presented next; each component responds to at least one meta-inference in Table 21.

8.2 Components of the Proposed Coaching Development Framework

The proposed Coaching Development Framework organizes the study findings into a coordinated system of athlete assessment, institutional support, practical access, integrated coaching and mentoring, performance development, and continuous review. Its purpose is to strengthen the conditions that allow student-athletes to participate consistently, receive assistance suited to their needs, and develop across the four assessed performance domains. The framework positions the athlete's development within the shared work of coaches, trainers, school personnel, families, and community partners. It is presented as the study output and a basis for program planning and subsequent evaluation.

The first component establishes who the program serves and what each athlete needs to participate and improve. It begins with the five profile variables used in the study: age, sex, type of sport, years of participation, and level of competition. These are supplemented by an individual conversation about development goals, training availability, equipment access, transport, and academic responsibilities. The purpose is to connect profile information with actual needs rather than use demographic categories as automatic indicators of ability or need.

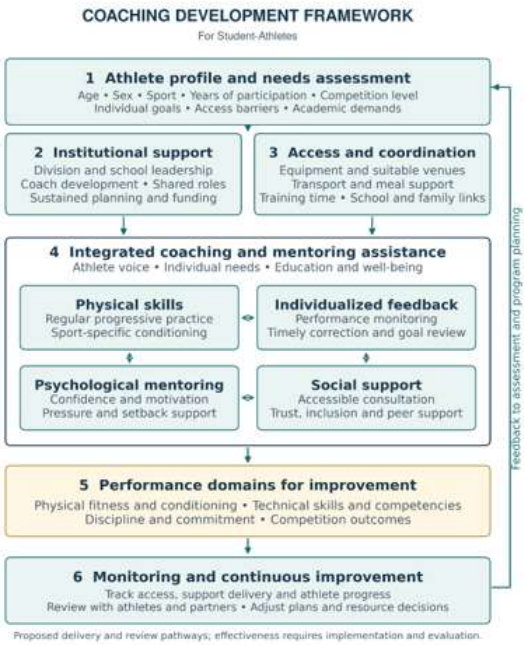


Figure 2

Proposed Coaching Development Framework for Student-Athletes

Institutional support provides the responsibilities, time, and resources needed to sustain the framework. A proposed division coordinating group would connect the relevant division personnel with school heads and designated sports coordinators. Each participating school would identify the personnel responsible for coaching, training arrangements, athlete mentoring, academic coordination, and resource requests. The specific assignments would follow local staffing and approved responsibilities. This

structure is intended to make support dependable and to provide a clear route for concerns that cannot be resolved within a training session.

Practical access converts available assistance into opportunities that athletes can actually use. The qualitative theme on resource limitations shows that equipment, facilities, funding, and access shape training opportunities. The proposed access component therefore includes an equipment and venue inventory, a workable schedule for shared facilities, a process for reporting unusable equipment, and a coordinated route for transport and meal-support needs. Resource provision would be based on documented barriers and approved arrangements.

The fourth component is the framework's direct assistance to athletes. It retains the four assessed domains so that the proposed program can be evaluated against the study constructs. The domains are connected in practice: a technical correction can also build confidence; a consultation can identify an equipment barrier; and a progress review can reveal a need to change the training schedule. Coaches and support personnel would coordinate these activities through the athlete development plan, rather than create unrelated services with separate goals.

Individualized feedback would make correction specific, timely, and understandable. Training plans matched to ability and needs received M = 3.17, while timely and constructive feedback received M = 2.91. The difference between these indicators suggests that planning may be experienced more favorably than the immediacy of corrective communication. A proposed feedback routine would identify the observed task, explain one manageable improvement, allow the athlete to try it, and confirm whether the adjustment helped. A brief progress note would connect the correction to the athlete's agreed goal.

Psychological mentoring would preserve the study's strongest assistance domain while giving more structured attention to difficult experiences. Promotion of a positive mindset received M = 3.34, whereas support during stressful situations received M = 3.18. Both were positively assessed, but the difference suggests a useful distinction between routine encouragement and support when an athlete experiences pressure or loss. A proposed mentoring routine would include precompetition conversations about manageable goals, opportunities to express concerns, and postcompetition reflection on both successful and difficult experiences.

Social assistance would provide accessible communication and distribute support across appropriate people. Regular coach communication received M = 3.19, and approachability M = 3.17, while consultation outside training had the lowest assistance indicator mean, M = 2.82. This pattern suggests that athletes can experience positive relationships while still having limited opportunities for contact beyond scheduled practice. Proposed consultation times, a designated contact person, and a clear route for urgent concerns would improve predictability while respecting coaches' other duties.

The fifth component defines the areas in which athlete progress would be assessed. It uses the four performance subvariables of the study and treats their reported composite means as contextual findings, not as automatically equivalent to objective test results. For a participating cohort, coaches and appropriate personnel would establish a new baseline using consistently administered survey measures and suitable sport-specific records. The intended result is documented improvement over time, with attention to participation opportunities and the assistance actually received.

Physical fitness and conditioning would be assessed through suitable, consistently recorded fitness tasks and observations of training tolerance, alongside the study indicators. The emphasis would be sustainable participation and progressive conditioning, especially given the domain mean of 2.91 and the comparatively lower fatigue rating. Technical skills and competencies would use sport-specific criteria for execution, role requirements, and progression toward more complex tasks. The domain mean of 2.96 and lower advanced-technique rating suggest tracking gradual mastery, rather than judging development through a single competition appearance.

Discipline and commitment would include attendance and punctuality records, adherence to agreed expectations, athlete goal follow-through, and coordination of academic responsibilities. Its composite mean of 3.20 provides a positive starting point. Records would distinguish missed participation associated with reported access barriers from other reasons, so that support decisions remain responsive. Competition outcomes would include personal or team goal attainment, suitable sport-specific results, and placements where applicable. The domain mean of 2.95, together with the higher team-contribution indicator of 3.15, suggests that evaluation should recognize useful contributions even when an athlete does not obtain an award.

Competition records would identify the event, level, role, and participation opportunity to make comparisons meaningful. The absence of national-level respondents does not by itself establish that national participation should be an immediate target for every athlete. Progression would depend on readiness, the sport, available opportunities, and agreed development goals.

Monitoring closes the feedback loop shown in Figure 2. It asks whether practical barriers were addressed, whether assistance was delivered as planned, and whether athlete development changed. A proposed monthly school review would examine

attendance interruptions, unresolved support needs, completed training and mentoring activities, and progress toward athlete goals. A proposed quarterly division review would examine shared resource constraints, coaching development needs, and differences in opportunity across schools and groups. These intervals are proposed implementation arrangements, rather than findings about existing practice. Athletes would have a way to comment on feedback clarity, consultation access, belonging, and whether support addresses the barriers they identified.

The review process would make specific decisions. Repeated cancellations would prompt a schedule or venue adjustment; delayed feedback would prompt a change in session organization; persistent skill difficulty would prompt a revised learning task; and unresolved practical barriers would prompt coordination with the responsible personnel. Comparisons by profile would be used to detect possible gaps in opportunity and support, without interpreting group membership as a cause of performance. Reassessment would retain consistent measures and document changes in participants or conditions so that apparent progress is not attributed to the program without considering alternative explanations.

This chapter consolidates the study's findings on coaching and mentoring assistance and the assessed sports performance of student-athletes in SDO Calamba City. It summarizes the principal results across eight research question areas and draws conclusions from the statistical inferences and participants' accounts. Recommendations specify stakeholder actions and directions for further inquiry. The closing reflections articulate the study's contribution and the continuing work needed to translate its findings into dependable athlete support.

The findings combine survey records from 113 student-athletes and interview accounts from nine coaches and trainers. The quantitative component describes athlete profiles, assessed assistance and performance, group differences, and relationships between assistance and performance. The qualitative component explains coaching experiences and challenges through six major themes developed from the coded interview responses.

1. Profile of the Student Athletes

The profile covered 113 student-athletes. The largest age group was 14 to 15 years (n = 54, 47.79%), followed by 16 to 17 years (n = 41, 36.28%), 18 years and above (n = 13, 11.50%), and 12 to 13 years (n = 5, 4.42%). Male athletes (n = 60, 53.10%) slightly outnumbered female athletes (n = 53, 46.90%). Team sports predominated (n = 71, 62.83%), followed by individual (n = 35, 30.97%), dual (n = 18, 15.93%), and combative sports (n = 1, 0.88%); these categories overlapped. Participation was most commonly less than one year (n = 39, 34.51%) or one to two years (n = 37, 32.74%), followed by three to four years (n = 28, 24.78%) and five years or more (n = 9, 7.96%). Competition was concentrated at school level (n = 73, 64.60%), followed by division (n = 18, 15.93%), regional (n = 13, 11.50%), and district (n = 9, 7.96%); none was recorded nationally.

2. Extent of Coaching and Mentoring Assistance

Psychological assistance had the highest composite mean (M = 3.28, Very High Extent), followed by physical skills (M = 3.08), individualized feedback and performance monitoring (M = 3.06), and social assistance (M = 3.05), all interpreted as High Extent. In psychological assistance, promoting a positive mindset was highest (M = 3.34), while support during stressful situations was lowest (M = 3.18). In physical skills, updated, sport-specific techniques ranked highest (M = 3.16), and regular sessions ranked lowest (M = 3.01). For feedback and monitoring, matching training plans to ability and needs was highest (M = 3.17), while timely, constructive feedback was lowest (M = 2.91). In social assistance, regular communication was highest (M = 3.19), and consultation outside training was lowest (M = 2.82).

3. Assessed Level of Sports Performance

All four performance domains were interpreted as Very Good. Discipline and commitment had the highest composite mean (M = 3.20), followed by technical skills and competencies (M = 2.96), competition outcomes (M = 2.95), and physical fitness and conditioning (M = 2.91). In discipline, self-discipline without supervision ranked highest (M = 3.25), and consistent, punctual attendance ranked lowest (M = 3.13). In technical performance, applying sport-specific skills during games was highest (M = 3.05), while advanced techniques were lowest (M = 2.86). Competition outcomes were strongest for contribution to team success (M = 3.15); improving rankings and winning awards or showing measurable improvement tied for lowest (M = 2.88). In fitness, improvement in assessments was highest (M = 3.03), and sustaining peak performance without fatigue was lowest (M = 2.74).

4. Differences in Sports Performance According to Profile

Age differences were significant for physical fitness and conditioning, $H(3) = 10.08$, $p = .018$; technical skills and competencies, $H(3) = 9.65$, $p = .022$; and discipline and commitment, $H(3) = 12.39$, $p = .006$, all medium effects. In these three domains, athletes aged 12–13 and those aged 18 and above had the highest means, while those aged 16–17 had the lowest; competition outcomes did not differ by age, $H(3) = 4.42$, $p = .220$. Sex differences were significant for technical competencies, $U = 1141$, $p = .009$, and competition outcomes, $U = 1138$, $p = .009$, both small effects, with male athletes having higher means in both domains.

Competition-level differences were significant for physical fitness, $H(3) = 10.64$, $p = .014$, and technical competencies, $H(3) = 9.80$, $p = .020$, both medium effects; division participants had the highest means (3.31 and 3.29) and district participants the lowest (2.47 and 2.36). Years of participation showed no significant difference in any domain ($p = .223$ to $.666$). The omnibus tests do not identify particular pairs of groups, and no comparison was made by overlapping sport type.

5. Relationship Between Coaching and Mentoring Assistance and Sports Performance

All assistance–performance correlations were positive and significant (all $p < .001$). The combined assistance and performance scores were related at Spearman's $\rho = .658$. Assistance as a whole correlated with fitness ($\rho = .624$), technical competencies ($\rho = .597$), discipline ($\rho = .555$), and competition outcomes ($\rho = .566$). With performance as a whole, feedback and monitoring had the highest coefficient ($\rho = .655$), followed by social assistance ($\rho = .649$), psychological assistance ($\rho = .605$), and physical skills assistance ($\rho = .566$). The 16 pairings between assistance and performance sub variables ranged from $\rho = .483$ for physical assistance with technical competencies to $\rho = .608$ for feedback and monitoring with technical competencies.

6. Experiences of Coaches and Trainers

Three major themes described coaches' and trainers' experiences. Coaching as a meaningful relationship that develops the person captured fulfillment through athletes' progress, continuing relationships, and character formation beyond competition. Individualized learning through progressive practice and feedback described adapting instruction to different abilities and learning needs, using structured practice and correction, and adjusting coaching in response to progress. Sustaining confidence and belonging through supportive mentoring described encouragement, reflection after setbacks, emotional support, trust, inclusion, and peer relationships. Together, the themes portrayed coaching as both technical instruction and sustained personal guidance. Participants differed in the formality and consistency of their monitoring practices.

7. Challenges in Sustaining Coaching and Mentoring Programs

The challenge themes described difficulty maintaining training continuity alongside academic requirements and coaches' professional responsibilities, as well as providing assistance within limits on funding, equipment, facilities, and practical access. Coaches described flexible arrangements, communication, adaptation, and shared support as responses to these constraints. Their accounts also identified the demands of addressing varied learning needs, maintaining motivation, and responding to setbacks. A third theme, building sustainable programs through institutional support and coach development, drew together the participants' recommendations for continuous coach education and practical resourcing, shared responsibility for structured athlete mentoring, and sustained development and progress evaluation. Challenges varied across participants; some accounts reported an absence of particular difficulties or limited formal measurement. The collective themes therefore represented recurring patterns without implying identical experiences in every school.

8. Coaching Development Framework as the Study Output

The proposed Coaching Development Framework organizes support for student-athletes in SDO Calamba City through six connected components: athlete profile and needs assessment; institutional support and coach development; practical access and academic coordination; integrated coaching and mentoring assistance; performance domains for improvement; and monitoring and continuous improvement. Its assistance component covers physical skills, individualized feedback and monitoring, psychological mentoring, and social support. Its performance component covers fitness, technical competencies, discipline and commitment, and competition outcomes. The framework combines existing strengths in assistance and athlete commitment with priorities concerning dependable feedback, accessible consultation, conditioning, progressive instruction, resources, and coordination. It includes a feedback process through which progress and support needs inform subsequent decisions. The framework is a proposed output whose implementation and effectiveness have yet to be evaluated.

The conclusions synthesize the statistical inferences and the converging and complementary meanings in participants' accounts. The integrated interpretation clarifies the relevance of the findings without assigning causal effects to associations or treating all participant experiences as identical.

1. The findings imply that coaches' professional competence includes the ability to respond to athletes as individual learners. A common practice session can contain athletes with different learning paces, backgrounds, and immediate barriers. Coaching preparation therefore needs to include assessment of readiness, progressive tasks, understandable correction, and adjustment following feedback. The individualized-learning theme and the positive feedback-performance relationships make these activities relevant to continuing practice.
2. Relational mentoring also deserves a defined place in the training process. Psychological assistance was favorably assessed, and coaches described confidence, encouragement, trust, and support after setbacks. These findings imply that

athlete development includes the experience of being able to ask questions and obtain help. Consultation arrangements should be understandable to athletes and feasible within coaches' responsibilities.

3. The performance findings imply that commitment should be used as a foundation for learning without being treated as evidence that all developmental needs have been met. Conditioning, advanced technical skills, and competition preparation require continuing instructional attention. Coaches should interpret missed participation and slow progress alongside training exposure and reported access conditions. This approach changes the practical question from whether an athlete appears committed to what assistance and opportunity the athlete needs next. It also supports recognition of personal improvement and team contribution alongside placements. Practice records should help coaches make these judgments and remain brief enough to be used consistently.
4. At the school and division levels, the findings imply a need to make sports assistance an identifiable institutional responsibility. Accounts of competing duties and resource adaptation indicate that provision can depend heavily on individual initiative. Planning arrangements should specify who coordinates facilities, coach assignments, consultation contacts, and unresolved practical needs. This is an implication for the organization of support; it is not evidence that a particular policy was absent or violated.
5. Resource planning should consider continuity and access alongside the acquisition of equipment. Suitable resources have limited developmental value if athletes cannot use them regularly or training schedules conflict repeatedly with academic requirements. Institutional review should therefore examine usable equipment, venue availability, recurring cancellations, and barriers reported by athletes and families.
6. The group differences imply that equity review should examine opportunity across groups without assuming that group membership explains performance. Differences appeared by age in physical fitness, technical skills, and discipline; by sex in technical skills and competition outcomes; and by competition level in physical fitness and technical skills, while years of participation showed none. Because athletes aged 16–17 had the lowest means in all three age-related domains, the training demands and support available to this group warrant closer review. Schools and division personnel can review access to instruction, training time, and competition preparation using profile information together with individual needs. Similar assessments in some domains do not establish equal opportunity, just as different means do not identify the source of a difference. Policy use of these results should encourage direct examination of provision rather than fixed expectations based on sex, age, or competition level. Athlete and family participation in review can help reveal barriers that aggregate records do not explain.
7. The study implies the need to separate assistance received, assistance perceived, and performance demonstrated in subsequent evaluation. Their relationships are important, but a single set of favorable ratings cannot establish a developmental sequence. Future research should track whether planned support was delivered and whether athletes' competencies changed under comparable measurement conditions. This distinction is central to evaluating the framework because improvements in record-keeping or consultation access may occur before measurable sport-specific gains. Research should also examine whether stronger feedback and social-support associations remain when sport requirements, training exposure, and context are considered.

The recommendations assign action to the groups positioned to implement the study's implications. Each stakeholder should use baseline information to establish feasible commitments and review progress within the proposed framework. The tasks below are proposed measures for consideration in SDO Calamba City and participating schools.

1. Division officials should convene stakeholders to review the framework, designate a focal person, and plan a pilot in participating schools. A proposed one-academic-year pilot should establish baseline indicators, assigned responsibilities, and available resources before delivery. Quarterly division review should address recurring school needs and coach development. Officials should organize practical training on individualized instruction, feedback, mentoring, and monitoring, then review application. Decisions to expand the framework should follow evidence of feasibility and documented athlete development.
2. School heads should establish a sports support plan specifying coach assignments, training and consultation schedules, facility access, and responsibility for unmet athlete needs. Before each season, they should coordinate training with examinations and major academic requirements. Proposed monthly reviews should examine cancelled sessions, participation interruptions, resource access, and follow-up actions. The management team should involve appropriate personnel when reported fatigue, food-access, or health concerns require attention beyond coaching.

3. Sports coordinators should update athlete profile and needs records, retaining all applicable sport types, and work with coaches to prepare individual plans. They should provide athletes with a consultation contact and record support requests, responsible personnel, action, and follow-up dates. Coordinators should review equipment and venue schedules and refer unresolved concerns to school management. Their review should examine opportunities across age, sex, and competition-level groups alongside directly assessed needs.
4. Coaches and trainers should establish individual goals and sport-specific baselines at the start of training, organize progressive conditioning and technical practice matched to athletes' age and readiness, with closer attention to athletes aged 16–17, and provide timely correction followed by another attempt. Brief records should guide task adjustment. Coaches should maintain predictable consultation opportunities and reflective conversations after setbacks. They should discuss participation barriers before interpreting absences as weak commitment and assess progress through fitness, skills, disciplined participation, and competition-related development.
5. Athletes should help set goals, clarify feedback, follow agreed arrangements, and communicate academic or practical barriers early. They should report concerns affecting participation and review learning progress with coaches. Athlete representatives should gather concerns about consultation, schedules, equipment, and team relationships and bring them through the designated school process. Their participation in framework reviews should ensure that assessment includes the experience of receiving assistance.
6. Parents and guardians should discuss training schedules and individual plans with the coach or coordinator and communicate household or access conditions affecting attendance. Where feasible, they should support agreed routines and academic balance. They should encourage effort and learning alongside competitive results and use the designated school contact for unresolved barriers. Their contribution should complement institutional provision while recognizing differences in families' capacity to provide resources.
7. Partners should coordinate with the division and schools to address documented gaps in suitable facilities, equipment, transport, or competition preparation. Each contribution should identify intended users, delivery arrangements, duration, and the responsible contact. Shared resources should be scheduled through the sports coordinator. Partners should review whether assistance reached the intended athletes and prioritize dependable provision where recurring barriers have been identified.
8. Researchers and evaluation teams should establish baseline and follow-up measures of assistance delivery, continuity, and the four performance domains. They should combine survey assessments, appropriate sport-specific records, and recipient accounts, document missing-response treatment, and distinguish observed from imputed information. At the pilot's end, they should report feasibility, implementation consistency, resource requirements, and athlete development to the division and schools. This review should guide revision and further testing of the framework.

REFERENCES

1) **Anderson, L. (2021).** Coaching support and competitive performance among secondary school athletes. Journal of Sports Psychology and Education, 45(2), 112-125. https://doi.org/10.1016/jspe.2021.0045
2) **Bautista, R. (2023).** Facility availability and athletic readiness among public school athletes in the Philippines. Philippine Journal of Sports Development, 8(2), 77-89.
3) **Becker, G. S. (1964).** Human capital: A theoretical and empirical analysis, with special reference to education. Columbia University Press.
4) **Carter, J., Lopez, A., & Singh, M. (2024).** Mentorship influence on the development of youth athletes: A longitudinal study. Journal of Coaching and Performance Research, 29(1), 44-57.
5) **Carter, J., & Wilson, P. (2021).** Conditioning programs and their effect on athletic endurance and strength. Sports Training Review, 12(3), 101-115.
6) **Côté, J., & Gilbert, W. (2022).** Athlete-centered coaching: Principles and implications for coach education. International Sport Coaching Journal, 9(1), 24-36. https://doi.org/10.1123/iscj.2022-0021
7) **Creswell, J. W., & Plano Clark, V. L. (2023).** Designing and conducting mixed methods research (4th ed.). SAGE Publications.
8) **Deci, E. L., & Ryan, R. M. (1985).** Intrinsic motivation and self-determination in human behavior. Plenum Press.
9) **Delos Santos, M. (2023).** Mentorship practices and motivation among public school athletes in the Philippines. Asian Journal of Physical Education and Sports Management, 5(1), 60-75.

10) **Department of Education. (2020).** DepEd Order No. 34, s. 2020: National sports and physical fitness framework.
11) **Garcia, P. (2023).** Improvised training programs and performance gains in resource-limited schools. Educational Research for Physical Development, 4(2), 79-94.
12) **Gonzales, R., & Reyes, K. (2021).** Discipline and motivation among high school athletes: The role of coaching mentorship. Asia-Pacific Journal of Coaching Education, 3(1), 22-34.
13) **Hernandez, S., & Cruz, D. (2022).** Facility inadequacy and participation challenges among student-athletes. Sports Education Research Quarterly, 10(1), 90-104.
14) **International Olympic Committee. (2024).** Olympic Solidarity: Technical assistance for underrepresented athletes.
15) **Johnson, L., & Murray, A. (2021).** Effectiveness of structured training programs on youth athletic development. Sports Science and Education Review, 15(4), 88-101.
16) **Kim, H., & Johnson, P. (2022).** Nutrition and recovery patterns among collegiate and youth athletes. Journal of Sports Nutrition and Health, 18(2), 134-147.
17) **Kim, S., & Tan, J. (2024).** Technology integration in technical skill development for school-based athletes. Asian Journal of Sports Innovation, 7(1), 15-29.
18) **Kumar, V., & Lee, S. (2024).** Competition exposure and resilience among student-athletes. Global Journal of Sports Research, 11(2), 73-89.
19) **Lawshe, C. H. (1975).** A quantitative approach to content validity. Personnel Psychology, 28(4), 563-575. https://doi.org/10.1111/j.1744-6570.1975.tb01393.x
20) **Lee, C., & Brown, D. (2024).** Fitness monitoring as a tool for improving athletic performance in schools. Journal of Physical Education and Fitness Studies, 13(2), 101-117.
21) Lim, E., & Fernandez, L. (2024). Institutional partnerships and sustainability in school sports programs. Philippine Journal of Education and Management, 19(1), 59-73.
22) **Lopez, A., & Singh, R. (2024).** Training discipline and athletic success: A correlational analysis. Sports Psychology and Coaching Journal, 16(3), 122-136.
23) **Lopez, M., & Tan, K. (2024).** Skill clinics and local government participation in athlete development. Local Governance and Sports Studies Review, 8(1), 47-60.
24) **Martinez, T., Rivera, J., & Ortega, L. (2021).** Infrastructure and athletic readiness: A comparative study of private and public schools. Education and Sports Policy Journal, 9(2), 75-92.
25) **Nguyen, P., & Parker, J. (2024).** Access to sports facilities and its effect on athlete motivation and retention. Journal of Physical Activity and Society, 17(2), 98-110.
26) **Ocampo, E. (2023).** Physical fitness initiatives and student-athlete well-being in public schools. Philippine Journal of Physical Education Research, 7(1), 83-96.
27) **Peters, D., & Howard, A. (2022).** Administrative coordination in school-based sports programs: An evaluation study. International Journal of Sports Management, 14(1), 51-67.
28) **Peterson, R., & Clark, J. (2021).** Individualized coaching and technical skill mastery in young athletes. International Journal of Coaching Science, 8(3), 65-78.
29) **Philippine Constitution. (1987).** Article XIV, Section 19.
30) Ramos, V. (2023). Division sports coordination and athlete performance outcomes in Philippine schools. Educational Leadership and Sports Administration Journal, 6(1), 33-49.
31) **Republic Act No. 10173. (2012).** Data Privacy Act of 2012. Official Gazette of the Republic of the Philippines.
32) **Rivas, K. (2023).** Technical clinics and performance improvement in secondary athletes. Journal of School Athletics and Education, 9(1), 37-53.
33) **Singh, A., & Patel, N. (2022).** Skill-based training approaches in developing countries: A comparative analysis. International Journal of Sports Pedagogy, 6(4), 44-57.
34) **Torres, A., & Mendoza, P. (2021)**. Policy-driven sports program implementation in public schools. Education and Sports Management Review, 11(3), 119-133.
35) **UNESCO. (2023).** Sports for development and peace: Empowering youth through physical education.
36) **United Nations. (2015).** Transforming our world: The 2030 agenda for sustainable development. https://sdgs.un.org/2030agenda

37) **Villamor, R., & Cruz, J. (2022).** Local government support and performance among public school athletes. Philippine Journal of Sports Administration, 8(3), 92-108.
38) **Villanueva, S. (2023).** Meal programs and academic-athletic balance among student-athletes. Nutrition and Education Journal, 10(1), 62-76.
39) **von Bertalanffy, L. (1968).** General system theory: Foundations, development, applications. George Braziller.
40) **Wang, T., & Lee, C. (2021).** Holistic coaching strategies and athlete motivation. Journal of Applied Coaching Psychology, 9(4), 33-49.

There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non-Commercial 4.0 International (CC BY-NC 4.0) (https://creativecommons.org/licenses/by-nc/4.0/), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.