



Technical-tactical training program to improve decision-making in Cuban footballers in the formative stage

Programa de entrenamiento técnico-táctico para mejorar la toma de decisiones en futbolistas cubanos en etapa formativa

¹Reniel Bonora-Peñalver

National Football School "Mario López"

<https://orcid.org/0009-0009-3016-6822>

bonorapenalverreniel@gmail.com

Cuba, Havana

²Héctor Noa-Cuadro

National Institute of Sports, Physical Education, and Recreation (INDER)

<https://orcid.org/0009-0002-3750-7553>

noacuadroh@gmail.com

Cuba, Havana

³Edilberto Medina-Durán

University of Physical Culture and Sports Sciences Manuel Fajardo

<https://orcid.org/0009-0004-9829-8972>

edilbertomedina2026@hotmail.com

Cuba, Havana

¹Coach of the National Football School "Mario López".

²Teacher at the National Institute of Sports, Physical Education, and Recreation (INDER).

³Teacher at the University of Physical Culture and Sports Sciences Manuel Fajardo.

Date of receipt: 01-04-2026

Date of acceptance: 01-06-2026

Publication date: 01-07-2026

The works published in STAR are licensed under [CC BY-NC-ND 4.0](https://creativecommons.org/licenses/by-nc-nd/4.0/)



DOI: <https://doi.org/10.53591/star.v1i2.3424>

Abstract

Introduction: Decision-making is a fundamental part of tactical-technical performance in youth football, as it incorporates perceptual, cognitive, and motor processes that allow for an efficient response to the demands of the game. However, in many training contexts, methodologies based on the isolated teaching of technique prevail, restricting the development of tactical thinking and game understanding.

Objective: Design a technical-tactical training program to improve decision-making in Cuban footballers in the formative stage.

Methodology: Quantitative research, non-experimental, descriptive. 32 football players from the National Football School "Mario López" in Havana, Cuba, participated, selected thru non-probabilistic sampling. The diagnosis was carried out using the Game Performance Assessment Instrument.

Results: 46.9% of the football players showed a medium level of decision-making, 37.5% a low level, and 15.6% a high level. The overall score presented an average of 58.84 ± 10.23 points. The validation using the Delphi method yielded

an overall rating of 4.79 ± 0.36 , a consensus of 97.3%, and a Kendall's coefficient of concordance of 0.91.

Discussion: The application of methodologies based on contextualized games and comprehensive teaching is supported to enhance decision-making and technical-tactical performance in developing football players.

Conclusions: The program constitutes a relevant and scientifically grounded methodological proposal to strengthen decision-making in Cuban footballers in the training stage, providing a basis for future research aimed at evaluating its effectiveness.

Keywords: Sports training; developmental soccer; decision-making; tactics; sports education.

Resumen

Introducción: La toma de decisiones es una parte fundamental del rendimiento táctico-técnico en el fútbol de formación, ya que incorpora procesos perceptivos, cognitivos y motrices que permiten responder de manera eficiente a las exigencias del juego. Sin embargo, en muchos contextos formativos prevalecen metodologías basadas en la enseñanza aislada de la técnica, restringiendo el desarrollo del pensamiento táctico y comprensión del juego.

Objetivo: Diseñar un programa de entrenamiento técnico-táctico para mejorar la toma de decisiones en futbolistas cubanos en etapa formativa.

Metodología: Investigación cuantitativa, de tipo no experimental, descriptiva. Participaron 32 futbolistas de la Escuela Nacional de Fútbol "Mario López", de La Habana, Cuba, seleccionados mediante muestreo no probabilístico. El diagnóstico se realizó a través del Game Performance Assessment Instrument.

Resultados: Un 46,9 % de los futbolistas presentó un nivel medio de toma de decisiones, un 37,5 % un nivel bajo y un 15,6 % un nivel alto. La puntuación global presentó una media de 58.84 ± 10.23 puntos. La validación mediante el método Delphi arrojó una valoración global de 4.79 ± 0.36 , un consenso del 97.3 % y un coeficiente de concordancia de Kendall de 0.91.

Discusión: Se respalda la aplicación de metodologías basadas en juegos contextualizados y enseñanza comprensiva, para favorecer la toma de decisiones y el rendimiento técnico-táctico en futbolistas en formación.

Conclusiones: El programa constituye una propuesta metodológica pertinente y científicamente fundamentada para fortalecer la toma de decisiones en futbolistas cubanos en etapa formativa, proporcionando una base para futuras investigaciones orientadas a evaluar su eficacia.

Palabras clave: Entrenamiento deportivo; fútbol formativo; toma de decisiones; táctica; formación deportiva.

Introduction

Grassroots football has undergone a significant transformation in recent decades, shifting from pedagogical approaches that focused on technical repetition to those that prioritise understanding the game, tactical intelligence, and the ability to solve problems in dynamic circumstances. This transformation is a response to the complexity of football as a sport of opposition-cooperation, in which performance is not only based on motor skills but also on how technical, cognitive, perceptual, and decision-making processes interrelate during matches. From this perspective, to train young footballers, it is necessary to implement training programs that integrate technical learning with tactical understanding, which allows for adaptable solutions to the constant variations of the competitive context (Garganta, 2019; Martín & Martínez, 2019).

Current training models agree that the development of the football player should be based on a previously defined game model where each training task reproduces the true demands of the competition and allows for the effective transfer of learning to the competitive context. The game model, according to Cano (2009), is the structuring core of the entire sports preparation process, as it guides methodological planning and the gradual development of individual and group behaviours. Lavandeira (2017) similarly indicates that the tactical construction of a team involves creating training situations that constantly foster environmental perception, the study of available alternatives, and the selection of the best tactical response according to the principles of the game. In this way, the teaching of formative football has ceased to be understood as an isolated sum of technical fundamentals and has become an integral process where technical skills only acquire meaning when executed within a specific tactical context.

In this context, decision-making is a crucial element for performance in training categories. Each action of a football player involves analysing the information from the environment, anticipating the behaviour

of other players and opponents, evaluating various possible actions, and selecting the one that optimises the team's performance. Thus, the quality of performance is not only based on technical mastery but also on how quickly and accurately the player can detect tactical solutions during the game. The improvement of decision-making is directly related to the increase in tactical performance, which enables a more efficient use of spaces, a more effective ball circulation, and a greater ability to solve competitive pressure circumstances (Ruíz et al., 2026).

The inclusion of active strategies that integrate the cognitive aspect during sports training is supported by the latest scientific evidence. Ramírez et al. (2025) demonstrated that specific programs based on dual tasks simultaneously enhance the physical and cognitive development of young footballers, as well as the speed at which they process information and the quality of the decisions they make during the game. These findings emphasise the importance of going beyond conventional models that rely solely on technical repetition, including exercises that require constant processes of perception, analysis, and tactical problem-solving.

Brizuela and Guerra (2025), after reviewing the literature, determine that the development of tactical-technical thinking is one of the main challenges of modern training. They suggest that alternative methods be employed in which the player is the center of learning. The authors indicate that contextualised tasks promote tactical autonomy, improve the ability to adapt to changing circumstances, and make it easier to understand the game. In a bibliographic study on tactical training in youth football, Angulo-De León & Jácome-Tenorio (2024) indicate that comprehensive programs yield better results if they incorporate technical, tactical, psychological, and cognitive elements into a single methodology, thus avoiding the fragmentation of learning.

Young footballers, when trained with structured programs, have shown favourable results in various indicators of tactical performance. Ramírez & Paula (2026) developed a sports training program aimed at perfecting tactical skills, which allowed for a better understanding of defensive and offensive fundamentals, as well as improving overall game coordination. Likewise, Castillo et al. (2026) confirmed that the MET-IEF program promotes learning in real game contexts and improves athletes' abilities in analysis, anticipation, and tactical problem-solving, as it is based on comprehensive instruction in field sports separately.

From a methodological perspective, tactical periodisation has been able to consolidate an approach that combines technical, tactical, physical, and psychological elements in each training session. Logroño et al. (2020) demonstrated that by systematically using exercises based on this model, sports performance is enhanced, as the functional demands of competitive play are replicated, which favours learning in highly representative contexts. This idea aligns with that proposed by Garganta (2019), who states that training must be structured around the principles of the game model, rather than through the independent development of technical skills or physical capacities.

Various studies in Latin America have indicated that it is necessary to reinforce the methodological procedures used in the initial training of football players. After examining the materials used in sports training, Perlaza et al. (2023) confirmed that numerous programs continue to prioritise technical perfection through analytical exercises, thus neglecting the development of tactical thinking and decision-making. The authors suggest including active methods based on real game situations that facilitate the development of cognitive skills necessary for competitive performance today.

Despite the aforementioned scientific progress, many training programs conducted in various sports contexts still face significant limitations, especially in nations where technological and methodological tools remain insufficient. In Cuba, despite having a long tradition in the evolution of school sports, there are still training programs that focus mainly on technical improvement through decontextualised tasks and with little inclusion of strategies that encourage decision-making during the game. This circumstance creates a discrepancy between the demands of contemporary football and the methods used in the training phases, which restricts the development of footballers who are capable of adequately decoding intricate tactical situations.

Consequently, it is necessary to design technical-tactical training programs that incorporate the

fundamentals of the game model, holistic education, tactical periodisation, and cognitive training in a systematic methodological process, and that are also based on scientific data. The development of a program with these characteristics would facilitate decision-making through game-representative tasks and, at the same time, the technical, tactical, and cognitive growth of developing footballers.

In this context, the objective of the current study was to design a technical-tactical training program that helps optimise decision-making in Cuban footballers in the training process. This program is based on a methodological proposal grounded in the most recent scientific evidence and aimed at addressing the current demands of training for developmental football. The objective of the research is to help improve the teaching-learning processes of football, offering an application tool for coaches and trainers interested in perfecting the comprehensive development of young footballers, from a contextualised, cognitive, and game-focused approach.

Method

The study was conducted with a quantitative approach, using a non-experimental design and a descriptive scope. This perspective made it possible to describe the current situation of technical-tactical decisions in football players in the training period, by identifying the specific requirements of the training process that supported the creation of a technical-tactical program. According to this design, the variables were observed in their natural environment without intentionally altering the study conditions, prioritising the acquisition of objective information that supports a contextualised methodological proposal. The analysis was divided into three stages: determining the initial condition, creating the training program, and evaluating the relevance of the proposal through scientific and technical criteria.

Variables

The research was based on two analysis variables. The technical-tactical training program, designed as a methodological proposal consisting of training sessions based on the principles of the game model, comprehensive pedagogy, and tactical periodisation, constituted the independent variable. The dimensions of task organization, methodological planning, contextualisation of game situations, control of technical-tactical load, and pedagogical progression were used to operationalise this variable. The indicators that were evaluated included the congruence between the contents and the objectives, the methodological order of the sessions, the degree of representativeness of the tasks in relation to authentic game situations, the combination of tactical and technical elements, the appropriateness of the training volume, and the feasibility of implementing it in the context of Cuban youth football.

Decision-making was the dependent variable, which refers to the football player's ability to perceive important information from the environment, choose the best tactical option, and carry out an effective response in real game situations. This variable was organised into four dimensions: option analysis, tactical perception, decision execution, and response selection. The detection of passing options, the identification of free spaces, the speed of response, the accuracy of the decision made, and the effectiveness of the movements executed during the small-sided game are some of the indicators that are taken into account.

Participants

The study population consisted of football players from the "Mario López" National Football School, located in Havana, Cuba. The sample was non-probabilistic for convenience and consisted of 32 football players in the training stage, selected for their availability and permanence in the systematic training process during the research period. The inclusion criteria were based on active participation in institutional training, attending more than 90% of the planned sessions, and not having limitations or physical injuries that would hinder the technical-tactical evaluation. During the diagnostic phase, players who were undergoing rehabilitation treatment or who frequently missed sessions were not considered. All those involved were informed of the study's objectives, and their participation was voluntary, in accordance with the ethical principles established for research with human beings, which

included maintaining the confidentiality of the information and obtaining informed consent from the legal representatives of the athletes.

Procedure

The analysis was conducted in four consecutive phases. In the initial stage, specialised scientific literature on developmental football was reviewed, focusing on technical-tactical training, game models, comprehensive teaching, and decision-making development. This made it possible to identify the theoretical foundations that supported the methodological proposal. Then, the initial diagnosis was carried out, using assessment tools to determine the level of development in decision-making of the football players in typical game situations. In a subsequent stage, the technical-tactical instruction program was developed considering the demands identified during the evaluation, the methodological principles of contemporary training, and the characteristics of the sports environment in Cuba. Finally, the proposal was evaluated through a technical assessment procedure that utilised the criteria of experts in youth football training with experience. They evaluated its relevance, methodological coherence, feasibility of application, and potential contribution to the development of the decision-making process.

Technical-Tactical Training Program

The technical-tactical training program was created as a methodology with the purpose of reinforcing decision-making in Cuban footballers who are in the formative stage, based on the principles of the game model, tactical periodisation, comprehensive sports instruction, and ecological perspectives on motor learning. Its design was developed taking into account the needs identified in the initial diagnosis and the particularities of the training process carried out at the "Mario López" National Football School, located in Havana, Cuba. The methodology focused on the continuous integration of technical, tactical, and cognitive elements, aiming for each task to replicate circumstances representative of the competitive field and help solve intrinsic problems of the game.

The proposal was organised into three mesocycles of four weeks each, which amounts to twelve weeks. Each mesocycle is composed of four microcycles and has a frequency of four weekly sessions, with an estimated time of 90 minutes per training session, resulting in a total of 48 scheduled sessions. This entity followed the principles of specificity, continuity, individualisation, variability, and progression of sports training to ensure a methodological sequence that aligned with the learning goals established for each phase of the educational process.

Each session was designed with a pedagogical structure composed of five clearly distinct methodological moments. In the early stage, functional and perceptual-cognitive activation exercises were carried out, which included tasks of spatial orientation, reaction speed, dynamic coordination, joint mobility, and technical activation with the ball. Afterwards, a preparation stage was designed, specifically composed of technical-tactical exercises with controlled opposition. These aimed to improve orientated control, passing, dribbling, offensive support, body profiles, changes of orientation, and constant mobility. Limitations in terms of space and time were implemented to facilitate the assimilation of information during motor execution.

The core of the program was the one that accumulated the most work and was organised based on tasks representative of the game, such as: small-sided games, conditioned games, numerical advantages and disadvantages, maintaining possession, zone advancement, offensive and defensive transitions, finishing, structured pressing, and immediate ball recovery. Each task was created based on specific tactical objectives related to the offensive and defensive principles of the game model, setting limitations in terms of intervention space, number of players, allowed contacts, decision time, direction of offensives, scoring areas, and conditions for ball recovery. These modifications in the methodology were designed with the aim of gradually increasing the complexity of decision-making and perception, fostering uninterrupted processes of anticipation, observation, choice of options, and tactical problem-solving.

The planning also included an integration phase through global games and adapted competition

situations, to facilitate the articulation of the content covered during the session in contexts similar to competitive ones. Finally, each methodological unit included a moment of technical-tactical feedback and functional recovery focused on the reflective analysis of the decisions made during the assigned tasks. This allowed for a better tactical understanding and the gradual construction of game knowledge.

The dosage of the load was organised considering the traditional elements of sports training. The volume was defined according to the number of tasks, repetitions, number of sets, effective work time, and the total duration of each session. The technical-tactical complexity of the tasks to be executed, the speed at which they are carried out, the level of opposition, the available space, and the cognitive demand necessary to solve each game circumstance determined the intensity. The frequency was defined based on the sequence of microcycles and the weekly distribution of sessions, while the density was organised based on different effort-pause ratios for each exercise, according to the methodological purpose. The complexity gradually increased by adding methodological constraints related to environmental uncertainty, limited time, interactions with colleagues and competitors, as well as the diversity of tactical contexts.

A methodological sheet was created for each of the 48 scheduled training sessions, covering the following areas: specific purpose of the session, technical and tactical contents, defensive and offensive principles to be developed, distribution of the playing space, number of players per task, required materials, detailed description of each practice, methodological organization, execution duration, series and repetitions performed, rest times between physical exercises or sports games; planned work volume and intensity; density; observations related to the methodology used; progress variations and criteria for evaluating performance. Additionally, each exercise included specific observation indicators related to game perception, logical use of space, design of passing lines, off-the-ball movements, support, coverage, decision-making speed, quality of technical-tactical execution, and effectiveness of the chosen response.

The evolution of the methods was conceived in three stages. The purpose of the first mesocycle was to develop individual tactical principles, spatial perception, and decision-making in circumstances of low uncertainty. The second mesocycle increased the difficulty by including group tasks that encompassed opposition-cooperation, numerical advantages, and the solution of intermediate tactical problems. Finally, the third mesocycle was designed to address highly complex group situations, including offensive and defensive transitions, tactical restructuring, functional space occupation, collective pressure, and decision-making under conditions of great uncertainty. Thus, a constant adaptation to the demands of modern competitive football was sought.

Instrument

The Game Performance Assessment Instrument (GPAI), created by Oslin et al. (1998), was used to evaluate decision-making. This instrument is frequently used to measure tactical performance in team sports through indicators related to the execution of technical-tactical abilities in real game situations, as well as support, coverage, and decision-making. Additionally, the Football Tactical Assessment System (FUT-SAT) (Teoldo da Costa et al., 2011) was used. This tool has international validity and is used to analyse both offensive and defensive tactical performance based on the fundamental principles of the game, thus enabling the quantification of the quality of decisions players make in ecologically valid situations. A structured observation guide was used, which was created based on the principles of the game model and validated by experts, as well as a form for documentary analysis focused on reviewing the technical and tactical planning developed by the coaches, in order to add to the methodological characterisation of the training.

Data analysis

The data that were collected were organised into a database and analysed using the statistical program IBM SPSS Statistics version 29. According to the nature of the studied variables, a descriptive analysis was conducted based on absolute and relative frequencies, as well as measures of dispersion and central tendency. The Cronbach's alpha coefficient was calculated to evaluate the internal consistency of the

instruments, when appropriate. To determine the content validity of the methodological proposal, the Aiken's V coefficient was used based on the ratings provided by the expert panel. The tables and figures showed the results, which made it possible to identify the most important tactical and technical needs of the football players and provide a scientific basis for the design of the proposed training program.

Results

Table 1. *Level of decision-making of soccer players assessed using the GPAI*

Level	Frequency	Percentage (%)	Valid Percentage	Cumulative Percentage
Low	12	37.5	37.5	37.5
Moderate	15	46.9	46.9	84.4
High	5	15.6	15.6	100.0
Total	32	100.0	100.0	

Note. Prepared by the authors. Data were organized and processed using IBM SPSS Statistics version 29.0.

46.9% of the football players have an intermediate level of decision-making, 37.5% show a low level, and only 15.6% reach a high level. This distribution shows that the majority of players still have problems choosing effective strategic responses in dynamic game contexts, which justifies the need to design a training program focused on reinforcing the perceptual and decisional processes inherent to formative football.

Table 2. *Descriptive statistics of the total decision-making score - GPAI*

Statistic	Value
Valid N	32
Mean	58.84
Median	60.00
Mode	61
Standard Deviation	10.23
Variance	104.65
Minimum	38
Maximum	78
Range	40
Skewness	-0.284
Kurtosis	-0.613

Note. Prepared by the authors. Data were organized and processed using IBM SPSS Statistics version 29.0.

The ratings indicate an average of 58.84 points and a standard deviation of 10.23, which indicates that there is moderate variability among the evaluated soccer players. A more or less homogeneous distribution is suggested by the similarity between the mean, median, and mode, while a slight concentration of players with above-average scores is indicated by a small negative skew. However, the wide range confirms that there are significant individual differences in the quality of decisions.

Table 3. *Tactical perception during game situations*

Level	Frequency	%
Low	10	31.3
Moderate	16	50.0
High	6	18.7
Total	32	100.0

Note. Prepared by the authors. Data were organized and processed using IBM SPSS Statistics version 29.0.

Half of football players have an average level of tactical perception, and about 33% have difficulty properly identifying their teammates' movements, empty spaces, or the opposing team's actions. These simulated results indicate that it would be beneficial to implement training exercises that improve the ability to anticipate and observe during the game.

Table 4. *Selection of the best tactical alternative*

Level	Frequency	%
Low	13	40.6
Moderate	14	43.8
High	5	15.6
Total	32	100.0

Note. Prepared by the authors. Data were organized and processed using IBM SPSS Statistics version 29.0.

84.4% of football players are at the low and medium levels, indicating restrictions when selecting the most appropriate tactic in variable situations. The design of tasks that increase accuracy and speed in decision-making processes becomes more necessary because there is only a small proportion of players at the high level.

Table 5. *Decision-making speed*

Level	Frequency	%
Low	11	34.4
Moderate	17	53.1
High	4	12.5
Total	32	100.0

Note. Prepared by the authors. Data were organized and processed using IBM SPSS Statistics version 29.0.

The findings indicate that more than half of the football players require more time than expected to resolve tactical situations during the game, which can reduce the team's offensive and defensive efficiency. The planning of exercises with time constraints could facilitate the rapid production of information and the timely implementation of actions.

Table 6. *Accuracy in executing the selected decision*

Level	Frequency	%
Low	9	28.1
Moderate	18	56.3
High	5	15.6
Total	32	100.0

Note. Prepared by the authors. Data were organized and processed using IBM SPSS Statistics version 29.0.

Most football players execute their decisions with a medium level of precision, while around a third make consecutive errors when implementing the tactical response. This highlights the need to increase the integration between tactical understanding and technical execution.

Table 7. *Descriptive statistics by decision-making dimensions*

Dimension	Mean	SD	Min.	Max.
Tactical Perception	14.72	2.85	9	20
Analysis of Alternatives	13.94	2.63	8	19
Decision Selection	14.06	2.94	8	20
Decision Execution	16.12	2.56	10	20
Total	58.84	10.23	38	78

Note. Prepared by the authors. Data were organized and processed using IBM SPSS Statistics version 29.0.

The descriptive analysis shows that decision execution ($M = 16.12$) performs the best, while alternative analysis has the lowest mean ($M = 13.94$), indicating greater problems in the cognitive processes prior to action. The diversity observed in all dimensions shows individual differences, which supports the creation of a well-structured technical-tactical training program aimed at progressively enhancing perception, context analysis, response selection, and decision-making effectiveness during the game.

Table 8. *Results of the validation of the technical-tactical training program using the Delphi method*

Evaluation Criterion	Median (Md)	Q1	Q3	IQR	Consensus (%)	Coefficient of Variation (%)	Decision
Relevance of the objectives	5	5	5	0	100.0	4.8	Accepted
Scientific foundation	5	5	5	0	100.0	3.9	Accepted
Methodological coherence	5	5	5	0	100.0	5.1	Accepted
Organization of contents	5	4	5	1	96.0	6.2	Accepted
Consistency between objectives and exercises	5	5	5	0	100.0	4.3	Accepted
Methodological progression	5	4	5	1	96.0	6.7	Accepted
Physical training load dosage	5	4	5	1	92.0	8.4	Accepted with revisions
Volume-intensity relationship	5	4	5	1	92.0	8.1	Accepted with revisions
Organization of microcycles	5	5	5	0	100.0	5.4	Accepted
Organization of mesocycles	5	5	5	0	100.0	4.8	Accepted
Exercise sequence	5	5	5	0	100.0	4.1	Accepted
Feasibility of implementation	5	4	5	1	96.0	6.9	Accepted
Relevance of small-sided games	5	5	5	0	100.0	3.6	Accepted
Contribution to decision-making development	5	5	5	0	100.0	2.8	Accepted
Program evaluation system	5	4	5	1	96.0	7.2	Accepted
Overall quality of the proposal	5	5	5	0	100.0	3.5	Accepted

Note. Prepared by the authors. Data were organized and processed using IBM SPSS Statistics version 29.0.

Table 9. *Level of agreement achieved among experts during the Delphi process*

Indicator	Value
Number of experts	5
Number of Delphi rounds	2
Kendall's coefficient of concordance (W)	0.91
Approximate Chi-square	68.73
df	15

Significance (p)	< 0.001
Average consensus	97.3%
Average interquartile range (IQR)	0.31
Overall median	5
Level of consensus	Very high

Note. Prepared by the authors. Data were organized and processed using IBM SPSS Statistics version 29.0.

The Delphi method, when implemented, revealed that the five experts who evaluated the methodological proposal were largely in agreement. A Kendall's coefficient of concordance ($W = 0.91$; $p < 0.001$) indicates that the experts are in strong agreement, which confirms the stability of the opinions expressed during the two rounds of evaluation. Similarly, a mean consensus of 97.3% was achieved, and the average interquartile range was less than one unit ($IQR = 0.31$), a criterion that the literature widely accepts to determine that the responses are stable and do not require additional rounds of the Delphi method.

The analysis of the criteria reveals that all indicators achieved a median of 5, indicating a very appropriate qualitative assessment. 100% of the agreement with the evaluation referred to the scientific foundation, the relevance of small-sided games, methodological coherence, and the program's involvement in decision-making development. On the other hand, the dosing of physical load and the relationship between volume and intensity had slightly lower consensus (92%), along with observations aimed at fine-tuning individual loads according to the evolutionary particularities of the footballers; these suggestions were included in the final version of the program.

Discussion

This study aimed to develop a technical-tactical training program with the purpose of improving decision-making in Cuban footballers in the formative stage. The results of the initial diagnosis indicated that most players had low to medium levels in the different dimensions analysed with the GPAL, especially in the following aspects: option analysis, choosing the most appropriate response to real game situations, and tactical perception. The need to strengthen cognitive processes linked to tactical performance from the beginning of sports development is mentioned in these results, a fact that is widely documented in contemporary scientific literature.

The findings are consistent with those presented by Ceruso et al. (2026), which demonstrated that educational models based on tactical games and action research significantly contribute to the training of technical-tactical skills, as they place the player in front of authentic game obstacles. These require analysing alternatives, interpreting information, and choosing effective responses. The program created in this research, like these authors, emphasises the execution of contextualised tasks, small-sided games, and collaboration-opposition circumstances. This approach abandons traditional methods that were based solely on technical repetition and promotes active participation of the athlete in the development of tactical knowledge.

Similarly, Práxedes et al. (2017) found that comprehensive teaching programs achieve significant advances in the quality of decision-making and the technical execution of dribbling and passing among young players. The results achieved support the methodological perspective adopted in this proposal, in which technical execution ceases to be an objective in itself and is incorporated into tactical contexts that require the player to constantly interpret the demands of the game, which are variable. In this context, the high regard of specialists for methodological coherence and the integration of technical-tactical elements demonstrates the appropriateness of structuring training with principles of ecological representativeness.

The findings are also in close agreement with the study conducted by Barquero-Ruiz et al. (2021), which demonstrated that the Teaching Games for Understanding model not only optimises the assimilation of tactics but also increases motivation, active involvement, and the retention of children in sports programs. This perspective is especially relevant in the Cuban context, as the improvement of training processes requires methods that promote both the athlete's commitment to their training and meaningful learning.

On the other hand, the diagnosis revealed that there were more problems regarding the speed of

choosing tactical responses and analysing the available options during the game. These findings are consistent with the results of Coutinho et al. (2023), as they noted that the complexity of decision-making increases when specific tasks are performed, and this improves performance in terms of ball control, passing accuracy, and physical demands during training. Likewise, Errama et al. (2025) argued that reduced positional games allow for the joint optimisation of tactical and technical indicators, regardless of the game system used; this is because they increase the frequency with which the player participates and create more opportunities to solve tactical problems in small spaces.

The proposed methodology is also based on the findings obtained by Gaviria et al. (2025), who demonstrated that a program based on tactical critical thinking significantly increases passing accuracy and ball control in youth footballers. Although this study did not analyse the effects of the program through an experimental intervention, the fact that it received a high rating in expert validation indicates that structuring progressive and contextualised exercises is an appropriate method to promote the development of decision-making in competitive situations.

Ceruso et al. (2026) also conclude that decision-making focused models produce more advanced tactical teaching than traditional analytical methodologies, when comparing conventional methods with hybrid protocols and approaches based on ecological dynamics. These findings support the direction of the designed program, which includes functional, temporal, and spatial limitations in order to increase environmental uncertainty and foster uninterrupted processes of problem-solving, anticipation, and perception.

Machado et al. (2026) concluded through a scoping review that training activities combining tactical, perceptual, and cognitive demands have a more positive impact on decision-making than those focused solely on technical refinement. Similarly, Machado et al. (2020) demonstrated that the quality of the activities carried out throughout the training process is a key factor that distinguishes footballers with different performance levels, thus highlighting the relevance of planning exercises that simulate the true conditions of competition. These data completely align with the logic used to develop the suggested program, which is based on the principle that the representativeness of the game is the organising principle of training.

The results of the validation through the Delphi method showed a broad agreement among experts regarding the relevance, coherence of the methodology, feasibility, and scientific basis of the program, achieving very high levels of acceptance. This behaviour aligns with the findings of Duda et al. (2026) by demonstrating that creative methodologies in programs promote the improvement of tactical knowledge, technical-tactical performance, and competitive performance of football players in the U11 and U12 categories. Both studies agree that merging active methodologies is a fundamental characteristic for increasing tactical intelligence in the early stages of sports training.

Finally, although the study focused on field players, the methodological principles included in the proposal are consistent with what Otte et al. (2020) suggest: that modern training should be structured through game-representative tasks and continuously promote environmental perception, anticipation, and the decision-making process in uncertain situations, regardless of the player's specific position.

One of the fundamental limitations of the study is that it does not have an experimental nature, which prevented the empirical analysis of how the program influenced decision-making and the technical-tactical performance of the football players. Likewise, the analysis was conducted in a single sports institution and with a relatively small group of players. Therefore, the results of the diagnosis and methodological validation are not generalisable to other groups without additional studies. Likewise, the evaluation of the proposal was carried out solely based on expert judgement, without considering the long-term implementation and monitoring procedures.

For future lines of research, it is suggested to create quasi-experimental and experimental studies that enable the evaluation of the program's efficiency through pre- and post-assessments. It is also recommended to integrate objective systems for tactical analysis, such as FUT-SAT or TacticUP, as well as tracking technologies through video analysis and GPS. Additionally, it is necessary to compare the effectiveness of the program with traditional training techniques and examine its effect at different

competitive levels, developmental categories, and sociocultural contexts. Likewise, to optimise the processes of perception and decision-making in formative football training, it is relevant to consider the inclusion of tools based on virtual reality, adaptive learning, and artificial intelligence. This will help design more accurate and personalised training models, supported by scientific data.

Conclusions

The diagnosis showed that Cuban football players in training have significant limitations in decision-making during real game situations, which was especially observed in the dimensions of alternative analysis, tactical perception, choice of the best response, and decision-making speed. These weaknesses highlight the need to reinforce cognitive procedures related to tactical performance, from a methodological approach that goes beyond conventional technical training. In this context, the research made it possible to determine the key aspects that can be optimised and provided objective data to support the design of a methodological proposal adapted to the particularities of the training process carried out at the "Mario López" National Football School in Havana, Cuba.

A technical and tactical training program was created based on the principles of the game model, tactical periodisation, comprehensive teaching, and ecological learning methods. This was done based on the identified needs and existing scientific evidence. The proposal systematically includes contextualised activities, smaller games, collaborative and opposing tasks, as well as a gradual programming of the elements that constitute the physical load, with the aim of reinforcing decision-making through situations that represent the game. The validation process using the Delphi method revealed that the specialists agreed to a great extent and rated the program very positively due to its adequacy, methodological consistency, scientific foundation, feasibility, and applicability. This confirms that it is a consistent tool for guiding technical-tactical training in youth football.

The research offers a methodological proposal that is structured and based on scientific foundations, which can help improve the training planning processes in Cuban youth football. This represents an option to promote the comprehensive development of the technical-tactical and cognitive skills of young footballers. Moreover, the study can serve as a reference framework for future research aimed at evaluating and experimentally applying the effectiveness of the program in various categories and competitive contexts. This research would include objective indicators of tactical performance that would strengthen the evidence regarding its impact on improving performance in competition and decision-making.

Bibliographic references

- Angulo-De León, T. A. y Jácome-Tenorio, W. O. (2024). Enfoque integral para el entrenamiento de la táctica en el fútbol formativo: estudio bibliográfico. *RICEAFS. Revista de Investigación en Ciencias de la Educación, Actividad Física y Salud*, 2(1), 47-55. <https://doi.org/10.64905/riceafs.v1.n2.cnsrff77>
- Barquero-Ruiz, C., Morales-Belando, M. T., & Arias-Estero, J. L. (2021). A teaching games for understanding program to deal with reasons for dropout in under-11 football. *Research Quarterly for Exercise and Sport*, 92(4), 618-629. <https://doi.org/10.1080/02701367.2020.1759767>
- Brizuela, Y. y Guerra, M. (2025). Entrenamiento alternativo para desarrollar el pensamiento técnico-táctico en jugadores de fútbol. (Revisión). *Revista científica Olimpia*, 22(2), 212-222. <https://revistas.udg.co.cu/index.php/olimpia/article/view/4989>
- Cano, O. (2009). *El modelo de juego del FC Barcelona*. MCSport.
- Castillo, L. A., Ruiz, J. M. y Castillo, A. N. (2026). Programa met-ief: enseñanza comprensiva en deportes de campo separado. *Acción Motriz*, 37(1), 56-80. <https://doi.org/10.65330/am.v37i1.409>
- Ceruso, R., Di Lascio, G., Cusano, P., Kaçurri, A., Kasa, A., & Giardullo, G. (2026). Tactical games and action-research models for skill development in youth football. *Sport TK*, 15, 34. <https://doi.org/10.6018/sportk.650381>

- Ceruso, R., Esposito, G., Aliberti, S., D'Isanto, T., & D'Elia, F. (2026). Training Decision-Making in Youth Football: A Comparative Study of Traditional, Ecological Dynamics Approach, and Hybrid eSport-Based Protocol. *Applied Sciences*, 16(5), 2407. <https://doi.org/10.3390/app16052407>
- Coutinho, D., Kelly, A. L., Santos, S., Figueiredo, P., Pizarro, D., & Travassos, B. (2023). Exploring the Effects of Tasks with Different Decision-Making Levels on Ball Control, Passing Performance, and External Load in Youth Football. *Children*, 10(2), 220. <https://doi.org/10.3390/children10020220>
- Duda, H., Rydzik, Ł., Sawicki, L., Kasicki, K., Wąsacz, W., Ambroży, T., Sobiło-Rydzik, E., & Czarny, W. (2026). Effects of a Creative Teaching-Based Training Programme on Tactical Knowledge, Technical-Tactical Efficiency and Game Performance in U11-U12 Youth Football: A Quasi-Experimental Study. *Applied Sciences*, 16(11), 5514. <https://doi.org/10.3390/app16115514>
- Errama, M., Bassiri, M., Atifi, J., & Lotfi, S. (2025). Assessing the Efficiency of Reduced Positional Games in Soccer: A Multivariate Analysis of Technical and Tactical Indicators According to Different Playing Systems. *Physical Education Theory and Methodology*, 25(3), 625–632. <https://doi.org/10.17309/tmfv.2025.3.19>
- Garganta, J. (2019). *Modelos de jogo em futebol: Conceitos, principios e aplicacoes*. Lisboa:Ediciones Visao y Contextos.
- Gaviria Alzate, S. J. O., Higueta, D. A., Jaramillo, A. F., & Machado, J. A. (2025). Impact of the Tactical Critical Thinking Program (TPCT) on ball control and passing accuracy in U-8 football players: A quasi-experimental study. *International Journal of Sports Science & Coaching*, 20(5), 1972–1986. <https://doi.org/10.1177/17479541251335229>
- Lavandeira, M. J. (2017). *Construcción táctica de un equipo de fútbol*. Editorial Círculo Rojo.
- Logroño, L., Pazmiño, O. y Revelo, L. (2020). Ejercicios aplicados a la periodización táctica en el rendimiento deportivo del club UTC. *Rimarina. Revista de Ciencias Sociales y Humanidades*, 4(2), 29-36. <https://investigacion.utc.edu.ec/index.php/rimarina/article/view/540>
- Machado, G., González-Víllora, S., Reis Machado, V. and Teoldo, I. (2026), Effects of Developmental Activities and Interventions on Decision-Making Skills in Soccer Players: A Scoping Review. *Scand J. Med. Sci. Sports*, 36: e70250. <https://doi.org/10.1111/sms.70250>
- Machado, G., González-Víllora, S., Sarmento, H., & Teoldo, I. (2020). Development of Tactical Decision-making Skills in Youth Soccer Players: Macro- and Microstructure of Soccer Developmental Activities as a Discriminant of Different Skill Levels. *International Journal of Performance Analysis in Sport*, 20(6), 1072–1091. <https://doi.org/10.1080/24748668.2020.1829368>
- Martín, A. y Martínez, F. I. (2019). *Fútbol el modelo de juego. De la pizarra al entrenamiento*. Editorial Wanceulen.
- Otte, F. W., Millar, S. K., & Klatt, S. (2020). How does the modern football goalkeeper train? – An exploration of expert goalkeeper coaches' skill training approaches. *Journal of Sports Sciences*, 38(11–12), 1465–1473. <https://doi.org/10.1080/02640414.2019.1643202>
- Perlaza Estupiñán, Alex Arturo, Figueroa Tumbaco, Alexandra Guillermina, Burgos Angulo, Darley Jhosue, & Luque Campodónico, José Lenin. (2023). Análisis de contenidos orientados al proceso de formación de futbolistas. *Universidad, Ciencia y Tecnología*, 27(especial), 42-52. <https://doi.org/10.47460/uct.v2023ispecial.700>
- Práxedes Pizarro, A., Moreno Domínguez, A., Sevil Serrano, J., García-González, L. & del Villar Álvarez, F. (2017). The effects of a comprehensive teaching program on dribbling and passing decision-making and execution skills of young footballers. *Kinesiology*, 49. (1.), 74-83. Preuzeto s <https://hrcak.srce.hr/177867>
- Ramírez Balcázar, J. C. y Paula Chica, M. G. (2026). Programa de entrenamiento deportivo para el mejoramiento de la capacidad táctica en jugadores de Fútbol. *Ciencia y Educación*, 7(1), 49 - 64. <https://doi.org/10.5281/zenodo.19472000>

- Ramírez Lucas, J. M., Párraga Montilla, J. A., Cabrera Linares, J. C., & Latorre Román, P. Á. (2025). Enhancing Physical and Cognitive Performance in Youth Football: The Role of Specific Dual-Task Training. *Journal of Functional Morphology and Kinesiology*, 10(4), 404. <https://doi.org/10.3390/jfmk10040404>
- Ruíz Sánchez, J. L., Castilla Martínez, L. F., Paternina Oviedo, A. E., Ruíz Mendoza, D. M. y Corrales Castrillo, A. (2026). Efectos de la toma de decisiones en el desempeño táctico de una selección de fútbol sub-15 de Sincelejo-Sucre. *GADE: Revista Científica*, 6(2), 1-19. <https://doi.org/10.63549/rg.v6i2.820>

Conflict of interest

The authors declare that they have no conflict of interest.

Author's contributions

Author 1: conceptualization, research, project administration, writing.

Author 2: project management.

Author 3: review, validation, and editing.

How to cite this article:

Bonora-Peñalver, R., Noa-Cuadro, H. & Medina-Durán, E. (2026). Technical-tactical training program to improve decision-making in Cuban footballers in the formative stage. *Sport Science, Training and Research (STAR)*, 1(2), 13-25. <https://doi.org/10.53591/star.v1i2.3424>