The effect of the idea filtering strategy on conative logical thinking and the performance of the front shooting skills from rolling and from side passing in football

El efecto de la estrategia de filtrado de ideas en el pensamiento lógico conativo y el rendimiento de las habilidades de tiro frontal desde el rebote y desde el pase lateral en el fútbol

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Received: 17-12-25
Accepted: 23-01-26

How to cite in APA

Hazaa, F. A., Kareem, S. L., Shihab, S. H., & Ibrahim, S. S. (2026). The effect of the idea filtering strategy on conative logical thinking and the performance of the front shooting skills from rolling and from side passing in football. *Retos, 75*, 977-991. https://doi.org/10.47197/retos.v76.118384

Abstract

Objective: The research aimed to develop a scale for students' logical reasoning in football, prepare educational exercises for the idea filtering strategy and its application in physical education football lessons on outdoor fields, and identify its impact on logical reasoning and performance in the skills of forward shooting from dribbling and from side passes in football.
Research methodology: The experimental method was adopted with a two-group design (experimental and control) with (58) students randomly selected and divided into the two groups, representing (65.909%). The researchers used (120) students to develop the scale under study, employing systematic steps and various sequential statistical analyses. They also prepared the forward shooting test from dribbling and the shooting test from side passes. Educational exercises for the idea filtering strategy were developed and applied in the research experiment, the results of which were systematically analyzed.
Results: The results showed that the students in the experimental group outperformed their peers in the control group in all three dependent variables. The differences between the experimental and control groups in the reasoning tests were significant. The logical reasoning in football, scoring from a dribble, and scoring from a side pass (0.000) are statistically significant and positive, confirming the effectiveness of the idea filtering strategy on students.
Conclusions: The most important conclusion is that implementing educational exercises using the idea filtering strategy helps improve the level of logical reasoning and improves the performance of students who study using this strategy in terms of scoring from a dribble and scoring from a side pass in football, making them outperform their peers who study without it.

Keywords

Idea filtering strategy; conative logical thinking; front-shooting skills from rolling and from side passing in football.

Resumen

Objetivo: La investigación tuvo como objetivo desarrollar una escala para el razonamiento lógico de estudiantes de fútbol, preparar ejercicios educativos para la estrategia de filtrado de ideas y su aplicación en clases de educación física de fútbol en campos al aire libre, e identificar su impacto en el razonamiento lógico y el rendimiento en las habilidades de tiro al frente desde el regate y desde los pases laterales.
Metodología de la investigación: Se adoptó un método experimental con un diseño de dos grupos (experimental y de control) con 58 estudiantes seleccionados aleatoriamente y divididos en dos grupos, lo que representa el 65,909%. Los investigadores utilizaron a 120 estudiantes para desarrollar la escala en estudio, empleando pasos sistemáticos y diversos análisis estadísticos secuenciales. También prepararon la prueba de tiro al frente desde el regate y la prueba de tiro desde los pases laterales. Se desarrollaron y aplicaron ejercicios educativos para la estrategia de filtrado de ideas en el experimento de investigación, cuyos resultados se analizaron sistemáticamente.
Resultados: Los resultados mostraron que los estudiantes del grupo experimental superaron a sus compañeros del grupo de control en las tres variables dependientes. Las diferencias entre los grupos experimental y de control en las pruebas de razonamiento fueron significativas. El razonamiento lógico en fútbol, tanto al driblar como al pase lateral (0,000) es estadísticamente significativo y positivo, lo que confirma la eficacia de la estrategia de filtrado de ideas en los estudiantes.
Conclusiones: La conclusión más importante es que la implementación de ejercicios educativos con la estrategia de filtrado de ideas ayuda a mejorar el nivel de razonamiento lógico y el rendimiento de los estudiantes que estudian con esta estrategia en cuanto a driblar y pase lateral en fútbol, lo que les permite superar a sus compañeros que estudian sin ella.

Palabras clave

Estrategia de filtrado de ideas; pensamiento lógico conativo; habilidades de tiro frontal desde el rebote y desde el pase lateral en fútbol.

Introduction

Teaching football skills is distinguished from other team football games by the abundance of guidance and continuous feedback given to students in order to help them reach the best possible skill performance. Thus, what they derive from that guidance and feedback is nothing but information and knowledge that requires mental skills to think about it and transform it into purposeful, meaningful, and skillful performance behavior in the physical education lesson. Considering that, "thinking is a prominent and important educational topic, as it is one of the main objectives that must be included in the educational process, and achieving it in learners is a topic that directly affects the lives of learners and societies, and thinking helps learners to adapt to situations and new developments." (Al-Tamimi and Al-Khaikani 2019) as "the development of mental skills must go hand in hand with the development of elements of physical fitness, and skills such as concentration of attention, mental imagery, mental recall, and others must be planned for development, such as strength, flexibility, and speed, and integration in preparation, especially in the early stages, must work on developing physical and technical skills alongside mental and emotional ones, and neglecting such preparation hinders the achievement of accomplishments at the competitive level." (Basal, 2018) It is also said, "The unconscious desires and tendencies of students increase in proportion to the student's interest in the reality of his surroundings, especially the social and cultural environment with which he is in direct contact with events." (Taha, 2020) "And the more psychologically healthy the environment is, the more sound thinking will be born and support it. Conversely, an environment with weak foundations or full of unstable events may lead to disturbances in the individual's thinking towards that environment." (Mikhail, 2022) The researcher believes that the classroom environment of the physical education lesson, which is full of ideas, must meet intellectual responses and acceptance from each of the students, meaning that it is close to his thinking or meets the aspirations of his thinking which supports the motor behavior of the skill to be learned in this practical lesson in a logical way and far from excessive departure from actual reality, and it is in line with his desires and wishes that he aspires to in improving his performance in this popular, enjoyable, desirable and exciting game, as wishful thinking is generally known as "a pattern of thinking that involves forming beliefs and decisions based on what the student wishes or wants to be true, instead of relying on factual and logical evidence. This type of thinking expresses wishing or desire more than it is the result of objective or critical analysis." (Kardus & Sarricam, 2018: Nurfadhila, et al., 2025: Hi Rahman, et al., 2025). Dreaming is defined as "the process of thinking with the hope that something will happen or be true because it suits our desires and wishes, not because it is based on facts or factual evidence. Wishful thinking occurs when we cling to a strong hope or desire for something, causing us to ignore or downplay evidence that contradicts this desire." (Heilat, 2017) The main characteristics of wishful thinking are: preferring wishful thinking over logical reasoning (the student prefers what they wish would happen over what the evidence indicates); ignoring opposing evidence (the student ignores or downplays evidence that contradicts their wishes); unrealistic optimism (excessive and unjustified optimism based more on desire than on facts); and reliance on hopes (the student relies on hopes and wishes as evidence that things will improve). (Bbiker, 2018: Moya Ortega, et al., 2025: Lima e Silva, et al., 2025). "The positive aspects of logical wishful thinking include its potential to be a powerful motivator for achieving goals and aspirations, thus increasing motivation to work hard. It can also contribute to fostering a sense of hope and optimism, improving psychological and emotional well-being. Furthermore, it can encourage students to think outside the box and be innovative in their pursuit of their goals. Finally, focusing on wishes and ambitions can enhance resilience and perseverance in the face of challenges." (Igbinovia, 2016) "Exercises and games, by their very nature and diversity whether practiced with or without equipment, individually, in pairs, or in groups provide students with an appropriate opportunity to express their desires and inclinations, in addition to the enjoyment they derive from engaging in them." (Rashid & Neamah, 2022) Likewise, "a student's self-esteem, self-awareness, self-evaluation, and self-conduct assessment, along with their awareness of their potential and abilities, determine their future behavior Also, by reviewing the study that reached the conclusions: Kinesthetic awareness enables students to adapt to different situations in learning football skills by choosing the appropriate amount of attention required to anticipate the ball while perfor-ming kinesthetic awareness (Abdulkareem Al-Saedi et al., 2025) . The implementation of pre-sport games may serve as an effective pedagogical strategy to enhance fundamental technical skills in football through physical education (Burgos Angulo et al., 2025). the effect of the steps of the BAYER method on students learning rolling and passing in football. This indicates the effect of the strategy and its sequential steps (Kadhim Hadi & Ali Sami,

2025). While the researchers reviewed the findings of the study that the implementation of flag football proved effective in shifting from competitive goals to improvement goals, promoting an inclusive and participatory environment (Rey Gómez et al., 2025). They continue to develop and improve themselves, their abilities, and their potential when they are accepting of themselves. However, if they are not accepting of themselves, we find that they direct their energy towards destruction rather than construction. Self-esteem is a fundamental component capable of changing, organizing, and controlling an individual's behavior." (Al-Shaya and Al-Shayji, 2019)

Researchers believe that it is necessary to continue applying academic experimentation attempts in applying strategies that offer the best ideas and allow the student a space of freedom to choose the idea that is most suitable to his abilities and capabilities in performing football skills, especially skills that are characterized by changing the environment, which is football, including the skills of scoring forwards from rolling and from side passing, which are considered an advanced level of expressing the student's acquisition of control over the ball from movement, where he sometimes rolls the ball and sometimes receives it from a teammate and controls it to kick it towards the goal. This calls for him to choose the most suitable ideas that he nominates himself without any coercion imposed on him in learning to perform them. One of these strategies is the idea nomination strategy, as the educational idea nomination strategy is defined as "a systematic process that aims to collect, evaluate, and select the most effective educational ideas to achieve specific educational goals. This strategy is used to improve curricula, develop learning methods, and identify educational activities that can enhance learning. This process depends on specific criteria to evaluate ideas and identify those that can contribute significantly to improving educational quality." (Brooker & Butterworth, 2019: Asleawa, 2025: Rinaldi, et al., 2024). Furthermore, "The fundamental step in the idea generation strategy is dividing students into cooperative groups; based on the premise that thinking within a group is better than thinking alone. It is more productive because it helps generate, organize, and interact with ideas, and equips students with teamwork skills, collaborative thinking, a love of cooperation, initiative, and decision-making abilities." (Al-Wakil & Al-Mufti, 2015) Moreover, "The most important feature of the idea generation strategy is its inclusion of the two most important implementation methods: brainstorming and cooperative learning." (Al-Zarkani, 2018) Additionally, "The idea generation strategy does not require financial costs for its implementation, as it can be used easily and conveniently. It also adds enjoyment, dynamism, and activity among students in the classroom, and it stems from the principle that the student is the focus of the educational process." (Al-Bahadli, 2020: Kaewkamda, et al., 2025: Thare Hani, et al., 2025).

In light of the preceding theoretical presentation and educational, psychological, and skill-based analysis, the scientific importance of adopting immersive design-based learning strategies and active student participation is confirmed. This approach achieves a systematic integration of cognitive processes, motivation, scientific knowledge, and skill performance in football. Employing the idea filtering strategy provides a structured educational framework that allows students to consciously engage with learning stimuli and select ideas most aligned with their abilities and potential. This, in turn, transforms wishful thinking from a mere inclination towards a logical, analytical, and reasoned approach, verifiable in the practical application of skill performance.

This research aims to fill a knowledge gap in the field of football skills teaching by systematically linking the idea filtering strategy, as an immersive instructional design, with the development of logical reasoning as a motivational cognitive variable. It examines the impact of this approach on improving the performance of two key skills: forward shooting from dribbling and lateral passing. These are complex skills that require a high degree of integration between motor perception, decision-making, and skill execution in a dynamic environment. Furthermore, the research seeks to present a relatively generalizable applied model for university physical education courses. This model contributes to a deeper scientific understanding of the interaction between modern teaching strategies, cognitive motivation, and higher-order thinking processes. This, in turn, reinforces contemporary trends that emphasize student-centeredness in the educational process and supports the development of football teaching methods based on sound empirical scientific principles.

The research problem lies in the researcher's observation of the difficulties that students encounter in their weak learning to perform the skills of forward shooting from rolling and side passing among third-year students in the Department of Physical Education/College of Education/Al-Farahidi University, as well as the lack of reliance on mental measurement represented by logical and desirable thinking in

football. This observation came through the researcher's academic work in methods of teaching physical education, which made it necessary for this problem to employ the vocabulary of the strategy of filtering proposed ideas for experimentation as an attempt by the researcher to contribute to finding solutions to one of the problems of teaching skill performance in football.

The research aims to build a scale for students' logical and desirable thinking in football, prepare educational exercises for the idea filtering strategy and employ it in the physical education lesson for football in open fields, and identify the effect of the educational exercises for the idea filtering strategy on logical and desirable thinking and the performance of the skills of forward shooting from rolling and from side passing with football in open fields.

The researcher assumes that there are statistically significant differences between the results of the pre-tests and post-tests of the experimental and control research groups in logical and desirable thinking and the performance of the skills of forward shooting from rolling and from side passing with football in open fields, and there are statistically significant differences between the results of the post-tests of the experimental and control research groups in logical and desirable thinking and the performance of the skills of forward shooting from rolling and from side passing with football in open fields.

Method

Research Methodology

The problem addressed in the current study necessitated the researcher's adoption of an experimental approach with a two-group equivalent design (experimental and control) using pre- and post-testing. The research population consisted of third-year students in the Department of Physical Education and Sports Sciences, College of Education, Al-Farahidi Private University, for the academic year 2024/2025, totaling 88 students. These students were distributed across three sections: A, B, and C. The researchers randomly selected the experimental and control samples by lottery. The lottery resulted in the selection of two sections, B and C, with a combined total of 58 students, representing 65.90% of the population. One section was then randomly selected to form the experimental group (from section B) and the other (from section C) to serve as the control group, with 29 students in each group. Additionally, 10 students from section A were selected for the pilot study, representing a percentage of the total population. (11.364%) of this population. The research also required the availability of a sample to build a scale for logical and desirable thinking in football. The researchers selected (120) students from the same stage at Al-Isra University. The researcher used a special scale to test the sample, which is the scale for logical and desirable thinking in football (prepared by the researchers), which contains the number of items of the scale, which is (24) items x (5) students. The requirements of the current research problem also required the adoption of field procedures to build a scale for logical and desirable thinking in football. The researcher then followed the steps of this construction with the following field procedures and statistical treatments:

- The researcher identified the reasons for building the scale due to the lack of specificity in the rest of the scales for the subject of the current research and its sample of third-year students in the Department of Physical Education, Sports Sciences / College of Education / Al-Farahidi Private University.

Table 1. Showing sample size and division

Sample	Construction sample	Experimental	Controlled	Exploratory	Total
Division		B	C	A	A, B, C
Number	120 students	29	29	10	68
Percentage		65.90%		% 11.36	% 77.27

- The common characteristics of the third-year students in the Department of Physical Education and Sports Sciences, College of Education, Al-Farahidi Private University, representing the research population, were analyzed to formulate the item content appropriate to their level, age, and gender.

- The scale's name and objective were determined to be the "Logical and Rational Thinking in Football Scale," based on the integration of the concept with the research focus. Based on the theoretical framework of logical reasoning, the researcher prepared (24) item statements, ensuring their consistency with the specifics of the current research and its sample. The researcher adhered to the formulation guidelines for psychometric paper-and-pencil scales.
- The items of the logical reasoning football scale were concluded with three alternatives: (Always applies to me, Sometimes applies to me, and Does not apply to me), and a Likert scale (3, 2, 1). A higher score indicates greater achievement of the desired level in the student taking the scale.
- The face and logical validity of the scale items, their alternatives, the shooting key, and the instructions were verified by preparing a paper questionnaire to survey (19) experts in teaching methods, sports psychology, and testing and measurement. Over (80%) of the experts agreed to retain the items, their alternatives, the shooting key, and the instructions as originally written, without deletion, merging, modification, or addition. The pilot study was conducted on Sunday, October 13, 2024. The scale was administered, after establishing both face and logical validity, to a sample of ten students. This was done to identify potential obstacles that might arise in the subsequent research study, to assess the clarity of the scale's content for the research sample, and to calculate the average response time for organizational purposes only, which was eleven minutes. The researcher encountered no significant difficulties or obstacles other than reassuring the students that the scale's results were unrelated to their performance in the practical football lesson.
- To determine the construct validity and normality of the scale items, the construct form of the scale was administered to a sample of (120) students at Al-Israa Private University on Monday, October 14, 2024. The students' scores on each item were ranked in descending order. Then, a two-group system was used, with each group representing (27%) of the construct sample. Each group had a score of (32.4), which was rounded up to (32) to form the upper and lower groups. The statistical differences between the scores of the two groups were determined using the t-test for uncorrelated samples, as shown in Table (2):

Table 2. Shows the results of the discriminatory ability of the items on the football logical reasoning scale.

No.	Group	Statistical comparison between the two independent corresponding extreme groups						Acceptance of paragraph discrimination
		Number	Arithmetic mean	Standard deviation	(t)	(Sig)	Type Sig	
1	Upper	32	2.44	0.504	5.971	0.000	Sig	distinctive
	Lower	32	1.7	0.466				
2	Upper	32	2.34	0.483	12.914	0.000	Sig	distinctive
	Lower	32	1.07	0.254				
3	Upper	32	2.63	0.492	12.384	0.000	Sig	distinctive
	Lower	32	1.2	0.407				
4	Upper	32	2.41	0.499	13.188	0.000	Sig	distinctive
	Lower	32	1.07	0.254				
5	Upper	32	2.53	0.507	8.545	0.000	Sig	distinctive
	Lower	32	1.43	0.504				
6	Upper	32	2.69	0.471	18.005	0.000	Sig	distinctive
	Lower	32	1.03	0.183				
7	Upper	32	2.69	0.471	13.269	0.000	Sig	distinctive
	Lower	32	1.2	0.407				
8	Upper	32	2.66	0.483	17.29	0.000	Sig	distinctive
	Lower	32	1.03	0.183				
9	Upper	32	2.56	0.504	9.825	0.000	Sig	distinctive
	Lower	32	1.33	0.479				
10	Upper	32	2.59	0.499	13.31	0.000	Sig	distinctive
	Lower	32	1.13	0.346				
11	Upper	32	2.63	0.492	14.554	0.000	Sig	distinctive
	Lower	32	1.1	0.305				
12	Upper	32	2.81	0.397	9.982	0.000	Sig	distinctive
	Lower	32	1.87	0.346				
13	Upper	32	2.53	0.507	8.545	0.000	Sig	distinctive
	Lower	32	1.43	0.504				
14	Upper	32	2.72	0.457	12.602	0.000	Sig	distinctive
	Lower	32	1.27	0.45				
15	Upper	32	2.84	0.369	20.206	0.000	Sig	distinctive
	Lower	32	1.1	0.305				
16	Upper	32	2.94	0.246	23.793	0.000	Sig	distinctive

17	Lower	32	1.13	0.346	16.683	0.000	Sig	distinctive
	Upper	32	2.81	0.397				
	Lower	32	1.17	0.379				
18	Upper	32	2.41	0.499	10.391	0.000	Sig	distinctive
	Lower	32	1.2	0.407				
19	Upper	32	2.88	0.336	12.636	0.000	Sig	distinctive
	Lower	32	1.5	0.509				
20	Upper	32	2.91	0.296	23.651	0.000	Sig	distinctive
	Lower	32	1.1	0.305				
21	Upper	32	2.94	0.246	21.959	0.000	Sig	distinctive
	Lower	32	1.17	0.379				
22	Upper	32	2.38	0.492	11.428	0.000	Sig	distinctive
	Lower	32	1.13	0.346				
23	Upper	32	2.69	0.471	7.835	0.000	Sig	distinctive
	Lower	32	1.83	0.379				
24	Upper	32	2.69	0.471	7.78	0.000	Sig	distinctive
	Lower	32	1.87	0.346				

Item discrimination is acceptable if the (Sig) score is > (0.05) at a significance level of (0.05) and degrees of freedom of (60).

The researcher verified the internal consistency of the scale by finding the simple correlation coefficients between the score of each item and the total scale score, using the same scores administered to the 120 student participants in the statistical analysis sample, as shown in the results in Table (3):

Table 3. Shows the internal consistency of the football logical reasoning scale

No.	Correlation coefficients between item score and total scale score	(Sig)	No.	Correlation coefficients between item score and total scale score	(Sig)
1	0.589*	0.000	13	0.478*	0.000
2	0.667*	0.000	14	0.561*	0.000
3	0.534*	0.000	15	0.625*	0.000
4	0.752*	0.000	16	0.609*	0.000
5	0.621*	0.000	17	0.771*	0.000
6	0.679*	0.000	18	0.588*	0.000
7	0.454*	0.000	19	0.437*	0.000
8	0.609*	0.000	20	0.689*	0.000
9	0.817*	0.000	21	0.525*	0.000
10	0.499*	0.000	22	0.701*	0.000
11	0.661*	0.000	23	0.698*	0.000
12	0.539*	0.000	24	0.482*	0.000

The item was consistent, as the (Sig) score was > (0.05) at 118 degrees of freedom and a significance level of (0.05).

The reliability of the scale was statistically verified by using the same scores administered to a sample of (120) students. Cronbach's alpha coefficient was (0.887) at a significance level of (0.05) and 118 degrees of freedom.

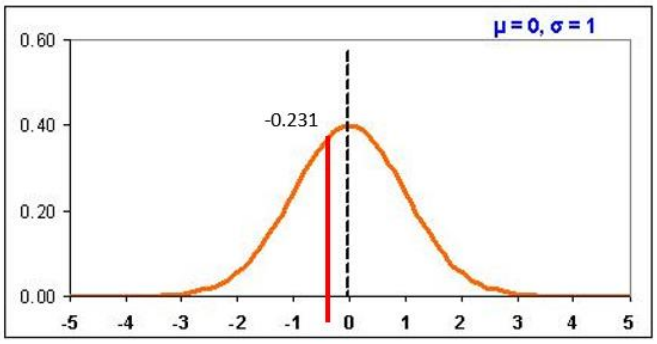
The suitability of the scale for third-year students in the Department of Physical Education and Sports Sciences, College of Education, Al-Farahidi Private University, was statistically verified by determining the normal distribution using the same scores administered to a sample of (120) students. The results were then statistically analyzed to extract the normal distribution, as shown in Table (4):

Table 4. Shows the final statistical parameters and normal distribution of the scale.

Scale	Number of Paragraphs	Unit of measurement	Total degree	Arithmetic mean	Highest value	Lowest value	Standard deviation	Skewness
Conative Logical Thinking football	24	degree	72	44.05	47	41	1.748	-0.231

The sample size for the construct was 120. The distribution was considered normal if the skewness was between 1 and 0.5.

Figure 1. Show the Skewness



With the completion of this procedure, the construction of the research scale was completed to be in its final form (Appendix 1) with a total score ranging between (24-72) and a hypothetical mean (48).

The research experiment began by administering pre-tests for both the scale and the two skill tests to 48 students in the experimental and control groups. Each student's performance in the skills of forward shooting from dribbling and side passing with a football was filmed on an open field. A performance evaluation form was used for each of these tests, without precise accuracy, after the recording. The technical performance score was then assessed by three experts. The shooting was distributed as follows:

- Preparatory Section: 3 points.
- Main Section: 5 points.
- Final Section: 2 points.

The purpose of these pre-tests was to verify the starting point between the two research groups according to the experimental design conditions. They were administered at 9:00 AM on Thursday, October 17, 2024, as shown in the results in Table 5:

Table 5. Shows the results of the pre-tests between the experimental and control research groups

Variables	Groups	Number	Arithmetic mean	Standard deviation	Highest value	Lowest value	(Liveen)	(Sig)	(t)	(Sig)	Type Sig
Conative Logical Thinking	Experimental	29	42.21	3.986	47	35	2.012	0.162	1.585	0.119	Non sig
	Control	29	43.69	3.083	47	41					
Performing the forward shooting skill from a rolling	Experimental	29	2.62	1.321	4	1	3.802	0.056	0.984	0.329	Non sig
	Control	29	2.93	1.067	4	0					
Performing the shooting skill from a side pass	Experimental	29	2.24	1.185	4	1	0.819	0.369	0.232	0.817	Non sig
	Control	29	2.31	1.072	4	1					

Equivalence and starting point: The statistical difference was not significant (Sig > 0.05) with 56 degrees of freedom, unit of measurement (degree). Confidence interval percentage 95 %

The researcher also prepared and implemented educational exercises for the idea filtering strategy in the research experiment with the experimental group students according to the following steps:

First: Defining the roles for practical football teaching using the idea filtering strategy:

The teacher's role in the idea filtering strategy: (Badir, 2018)

- Organizing the learning environment in the physical education football lesson in the department.
- Preparing practical lessons and educational exercises for performing both the forward shooting skill from dribbling and the side pass with a football.
- Providing the equipment and tools for the physical education football lesson without excessive distractions to allow for the free flow of ideas without distraction.

- Managing the lesson intelligently, directed towards achieving the specific objectives for teaching the performance of the forward shooting skill from dribbling and the side pass with a football.
- Considering the individual differences among students when teaching the performance of the two skills. Forward scoring from dribbling and sideways passes in football.
- Consider students' inclinations and preferences when teaching the skills of forward scoring from dribbling and sideways passes in football.
- Involve all students in practicing the educational exercises to learn the skills of forward scoring from dribbling and sideways passes in football.
- Provide necessary reinforcement to correct the learning of the skills of forward scoring from dribbling and sideways passes in football during the practical lesson.
- Encourage students' active participation in the learning process of the skills of forward scoring from dribbling and sideways passes in football.
- Provide opportunities for students to discuss the learning process of the skills of forward scoring from dribbling and sideways passes in football.

The student's role in the idea generation strategy (Attia, 2018):

- Actively participates in learning activities by applying educational exercises to practice the skills of forward shooting from dribbling and side passing with a football.
- Collaborates with peers and answers questions about performing the skills of forward shooting from dribbling and side passing with a football.
- Infers their expected skill performance for each of the skills of forward shooting from dribbling and side passing with a football.
- Researches learning resources, information, and anything new related to performing the skills of forward shooting from dribbling and side passing with a football.
- Reads, investigates, and strives to achieve the learning objectives of the practical football lesson independently.
- Evaluates their own performance, analyzes the ideas presented about performing the skills of forward shooting from dribbling and side passing with a football, and critiques them.

Second: The assessment used to diagnose weaknesses in logical reasoning in football was designed to address them through practical application in educational exercises using the idea filtering strategy.

Third: The content of the educational exercises employed in the idea filtering strategy included reciprocal drills between students and the teacher for both forward shooting skills (from dribbling and from passing the ball sideways). There were (4) drills per practical football lesson, with each drill lasting (10-15) minutes. To accommodate the specific requirements of the idea filtering strategy, all students were given (3) minutes to filter ideas, which was given only before the first drill in the practical football lesson.

Fourth: The educational exercises were employed in the practical application of the idea filtering strategy, which includes the following elements:

First: Gathering Ideas:

- Starting with a brainstorming session to collect as many ideas as possible about the skill performance related to the specific skill in the lesson.
- Encouraging each group of students to think outside the box and avoiding premature criticism of ideas.

Classifying and Analyzing Ideas:

- The teacher establishes clear criteria for classifying ideas related to performing the forward shooting skills of dribbling and side passing with a football, allowing free and without coercive

instructions during the lesson. These criteria include innovation, feasibility, impact, and the resources required.

- Conducting an initial screening of ideas based on the established criteria to identify the most promising ideas for improving the performance of the forward shooting skills of dribbling and side passing with a football.
- Estimating the resources required to implement each idea (appropriate training time, teaching aids, and the physical and motor effort required for the skill performance).

Comparison and Selection:

- Comparing ideas using tools such as decision analysis based on several specific criteria for performing the forward shooting skills of dribbling and side passing with a football.
- Identifying the ideas that best meet the skill performance requirements for both forward shooting skills of dribbling and side passing with a football.

Implementing the Prototype from the Idea Selection:

- Testing the Prototypes: Implementing the prototypes of the selected ideas in the lesson to test their effectiveness.
- Gathering Feedback: Collecting student and teacher feedback on the skill performance of both forward shooting skills of dribbling and side passing with a football, and the results obtained from using the prototypes for each of the two skills under investigation.

Initial Evaluation:

- After testing the ideas, a final evaluation is conducted to determine the most feasible and implementable idea for practical application before each training exercise for both forward shooting skills of dribbling and side passing with a football.

  Making a final decision on the concept to be fully adopted and developed in practice and practical application for both forward shooting from dribbling and side passing with a football.

Implementation:

- Developing a detailed plan to implement the chosen concept for each training exercise for both forward shooting from dribbling and side passing with a football.
- Defining roles and responsibilities and establishing a timeline for implementing the concept to improve performance in both forward shooting from dribbling and side passing with a football.

Ongoing Monitoring and Evaluation:

- Performance Monitoring: Monitoring student performance after implementing the chosen concept and providing them with ongoing feedback on their performance in both forward shooting from dribbling and side passing with a football.
- Continuous Improvement: Making continuous improvements based on feedback and evaluation results to ensure the effective achievement of the learning objectives for performing forward shooting from dribbling and side passing with a football.

Fifth: The elements of the idea filtering strategy were applied in the main section of the practical football lesson in the Department of Physical Education and Sports Sciences, College of Education, Al-Farahidi University, for students in the experimental group. This involved two lessons per week, covering both the theoretical and practical aspects, totaling 65 minutes. The remaining sections of the unit, including the preparatory (15 minutes) and final (10 minutes), were left to the instructor without any intervention from the researcher. The total time for each of these lessons was 90 minutes.

Sixth: Two weeks were allocated to each skill, totaling four practical lessons. This continued for four weeks, resulting in a total of eight practical lessons. The total time students received training in this strategy was 520 minutes within the practical football lesson units.

Seventh: The educational exercises for the strategy were implemented with the experimental group students every Sunday and Monday from Sunday, October 20, 2024, to Monday, November 11, 2024.

This experiment concluded with the administration of the scale and the recording of performance in the two skills under investigation in the post-tests on Thursday, November 14, 2024, under the same pre-test conditions. Following the completion of the research experiment, the results were processed using SPSS to calculate the percentage, mean, standard deviation, t-test for uncorrelated samples, simple correlation coefficient, Crunbach's alpha, skewness coefficient, Levene's test for homogeneity of variance, t-test for correlated samples, and t-test for uncorrelated samples.

Findings

Presentation, analysis of the results:

Table 6. Shows the results of the pre- and post-tests for the two research groups.

Variables	Groups	Tests	Arithmetic mean	Standard deviation	Arithmetic mean of difference	Standard deviation of differences	Highest value	owest valu	(t)	(Sig)	ype si
Conative Logical Thinking	Experimental	Pre	42.21	3.986	13.207	3.895	47	35	18.26	0.000	sig
		Post	55.41	0.867			56	54			
	Control	Pre	43.69	3.083	7.207	4.761	47	41	8.151	0.000	sig
		Post	50.9	2.596			56	49			
Performing the forward shooting skill from a rolling	Experimental	Pre	2.62	1.321	5.172	1.284	4	1	21.699	0.000	sig
		Post	7.79	0.412			8	7			
	Control	Pre	2.93	1.067	2.379	1.321	4	0	9.703	0.000	sig
		Post	5.31	0.85			7	4			
Performing the shooting skill from a side pass	Experimental	Pre	2.24	1.185	4.966	1.085	4	1	24.644	0.000	sig
		Post	7.21	0.491			8	7			
	Control	Pre	2.31	1.072	2.862	0.99	4	1	15.567	0.000	sig
		Post	5.17	0.889			7	4			

The difference is significant if (Sig) > (0.05) at a significance level of (0.05) and degrees of freedom (56). The unit of measurement is (degrees). Confidence interval percentage 95 %.

Table 7. Shows the results of the post-tests between the two research groups.

Variables	Groups	Number	Arithmetic mean	Standard deviation	Highest value	Lowest value	(t)	(Sig)	Type sig
Conative Logical Thinking	Experimental	29	55.41	0.867	56	54	8.888	0.000	Non sig
	Control	29	50.9	2.596	56	49			
Performing the forward shooting skill from a rolling	Experimental	29	7.79	0.412	8	7	14.159	0.000	Non sig
	Control	29	5.31	0.85	7	4			
Performing the shooting skill from a side pass	Experimental	29	7.21	0.491	8	7	10.785	0.000	Non sig
	Control	29	5.17	0.889	7	4			

The difference is significant if (Sig) > (0.05) at a significance level of (0.05) and degrees of freedom of (56). The unit of measurement is (degrees). Confidence interval percentage 95 %

Discussion

Referring to the results in Table (6), it is evident that the students in both research groups improved their levels of logical reasoning and their performance in the skills of forward shooting from rolling and from side passing with a football in the post-tests compared to the results in the pre-tests. Referring to the comparison and post-test results between the experimental and control groups in Table (7), which shows the superiority of the experimental group students over their peers in the control group in each of these three dependent variables, the differences between the experimental and control groups in the tests of logical reasoning with a football, forward shooting from rolling, and scoring from side passing amounted to (0.000), which are significant differences.

The researcher attributes the improved results and superiority of the experimental group students to their application of the idea filtering strategy. This strategy helped the students gather, classify, and

analyze ideas about performing the skills of forward shooting from dribbling and side passing with a football, identifying and selecting the most important ones to meet the requirements of the educational situations. These ideas require logical reasoning in football to be realistic, logical, and to simulate the actual reality of a physical education football lesson, for the purpose of practical application and comparison. With the model presented in the lesson, performance was then evaluated based on comparison with what should be completed in accordance with this model. The aim was to refine the skill performance in both forward shooting from dribbling and side passing with a football, correcting common errors. This was followed up by considering the proposed ideas based on the correct performance of these two skills. The idea selection strategy allows all students to participate in discussing the proposed idea, the one closest to reality, and to collaborate in answering inquiries without guesswork or speculation about the accuracy of the answers. They then deduce their expectations about the skill performance based on the knowledge of performance provided by the teacher in the educational aspect of this strategy. This strategy encourages attention to the details of skill performance, allowing the student to be both a performer and an evaluator of their own skill performance. This aligns with achieving the objectives of the practical lesson in an atmosphere of cooperation and idea exchange. All these factors combined played a clear role in the emergence of these post-test results. Indeed, the idea selection strategy can achieve more than one purpose in lessons if its practical components are effectively employed. It meets the needs of learners and the individual differences in their orientations towards those needs and requirements." (Al-Awini, 2024) Furthermore, "the idea filtering strategy gives learners freedom in the lesson and one of the characteristics of active learning is providing learners with the opportunity to carry out different learning processes." (Al-Sulaiti, 2015) The idea filtering strategy is based on learners contributing diverse and multiple ideas through a brainstorming question prepared by the teacher. They then filter and refine the ideas after answering and presenting their contributions according to specific criteria or standards set beforehand by the teacher, thus arriving at specific ideas that can be employed and utilized in the lesson topic or the scientific phenomenon being discussed. (Al-Hallaq, 2010) Moreover, "educational institutions can ensure the selection and adoption of the best ideas and practices that enhance the learning experience and effectively achieve educational objectives by using the educational idea filtering strategy." (Brooker & Butterworth, 2019) Furthermore, "the learner can be placed in educational situations within lessons that help activate several types of thinking, allowing them to find what fulfills their aspirations and facilitates interaction. It is essential to avoid complexity in tasks to prevent confusion in the thinking required to improve their level in a collaborative, group manner that achieves the desired educational goals. This should not, however, compromise the consideration of individual differences in completing these tasks and in the preference for a particular type of thinking." (Adham, 2024) Moreover, "when we receive information from the environment, this information may be diverse and multifaceted, and cognitive organization involves gathering this disparate information and assembling it together to form a picture or a comprehensible meaning." (Goldstein, 2014) As "shared knowledge can unite different team members and increase their integration." (Crotty et al., 2018) "Studies also confirm a strong relationship between thinking and the muscular activities of the person thinking; the more when a person is engrossed in thought, their muscle contractions increase, and the opposite is true: when a person is not thinking about anything, there is muscle relaxation. The muscular activities that an individual performs allow them to focus on thinking about what they want. (Abu Jadu and Nawfal, 2010) Furthermore, "activating the student's role in the lesson allows them to genuinely contribute to the activities, so that this contribution takes them beyond the role of a passive recipient." (Abdel Ali and Jabbar, 2022). This was confirmed by a study planning is linked to the central-executive functioning of the frontal lobes and associated brain structures. The language-based integration of calculation and planning is interpreted on both sociological and neurobiological levels, the result being a neurosociological level of analysis of instrumental rationality (TenHouten, 2013). Also the study

the effects were limited, this study also found that IBL experience could enhance preservice teachers' self-efficacy for teaching inquirí (Li and Fwu 2026). And emphasizes that linking theoretical results with practical reality plays a key role in advancing the educational process and ensuring the greatest possible impact (Thare Hani et al., 2025).

Conclusions

- Employing football drills using the filtering strategy in practical lessons is suitable for third-year students in the Physical Education Department, Faculty of Education, Al-Farahidi University.
- Applying drills using the filtering strategy helps improve the level of logical reasoning in football among students who study it, outperforming their peers who study it without this strategy.
- Applying drills using the filtering strategy helps improve the performance of the forward shooting and lateral passing skills in football among students who study it, outperforming their peers who study it without this strategy.

Recommendations:

- It is essential to focus on measuring each student's logical reasoning in football during practical lessons to support the improvement of their skill performance when taught using the filtering strategy.
- It is essential to pay attention to the type of ideas presented to students when teaching football skills using the filtering strategy.
- It is essential to conduct future studies that address teaching football skills using the filtering strategy for other skills and with samples at different levels.

Acknowledgements

None.

Financing

None.

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Appendix

Appendix 1. Shows the final version of the football logical reasoning scale.

No.	Content of the scale items	Answer alternatives		
		It always applies to me.	It sometimes applies to me.	It doesn't apply to me.
1	I focus on my goals regardless of the difficulties I may encounter while practicing my football skills.			
2	I tend to focus only on the positive aspects when practicing my football skills.			
3	I feel confident in achieving my goals even when the circumstances are unfavorable when practicing my football skills.			
4	I believe things will work out because I want to achieve my best football skills.			
5	I feel optimistic about the idea I choose when practicing my football skills.			
6	I feel optimistic that my football skills will improve in practice.			
7	I avoid thinking about things that might reduce my motivation when practicing my football skills.			
8	I believe that strong wishes can change my level of football skills.			
9	I believe that my football skills improve with practice and application supported by knowledge of the technique.			
10	I accept reality in practice if it conflicts with my desire to improve my football skills.			
11	I believe that my positive wishes can solve all my football skills problems.			
12	I expect my football skills to improve in the future.			
13	I plan to develop a clear strategy to achieve this improvement.			
14	I believe my fellow students are helping me in every way possible to achieve my goals of improving my football skills.			
15	I feel things will go well because I am committed to improving my football skills.			
16	I approach challenges in my football skills with a positive attitude.			
17	I am optimistic about achieving my goals of improving my football skills.			
18	I believe that positive thinking helps me succeed in improving my football skills.			
19	I am open to listening to constructive feedback on improving my football skills during practical lessons.			
20	I believe that improving my football skills requires effort and perseverance in practical application.			
21	I assume that improving my football skills will come through diligent practice in practical lessons.			
22	I feel confident that success in improving my football skills will be achieved because I really want to.			
23	I base my understanding of my football skills during the practical lesson on my actual abilities, in a completely logical manner.			
24	I avoid exaggerating my thinking about how I will perform my football skills during the practical lesson.			