The effect of special skill training on the shooting accuracy of football under-15 players

El efecto del entrenamiento de habilidades especiales en la precisión de tiro de jugadores de fútbol sub-15

Authors

Wesam Najeeb Asleawa [1]

[1] University of Baghdad, (Iraq)

Corresponding author:
Wesam Najeeb Asleawa
wissam.n@cope.uobaghdad.edu.iq

Received: 13-09-25
Accepted: 16-10-25

How to cite in APA

Asleawa, W. N. (2025). The effect of special skill training on the shooting accuracy of football under-15 players. *Retos, 73*, 1452-1461. https://doi.org/10.47197/retos.v73.117608

Abstract

Objective: The research aimed to identify the impact of skill training, specifically on the shooting accuracy of under-15 football players.
Research methodology: The researcher used an experimental approach on a sample of players from specialized centers affiliated with the Ministry of Youth and Sports. The researcher used a skill test (control test, then dribbling, then shooting), in addition to implementing several administrative procedures to begin implementing the research mechanisms. He then began applying the curriculum components to the experimental research sample on March 1, 2025, corresponding to Saturday, at Al-Shaab International Stadium/Specialized Center - Baghdad. The implementation of the main experiment (training approach) on the experimental research sample took a period of (1 month), with two training units per week.
Results: The results showed significant differences in the positive impact of special skill training on developing the shooting accuracy of youth players under the age of 15. Statistical analyses revealed a significant effect of the independent variable on the dependent variable, which is shooting accuracy.
Conclusions: Compound drills are more important than single dribbling because they are used in player development. Furthermore, players who practice more than one skill will be able to use these skills better during fast-paced, realistic play.

Keywords

Special skill training; ball control; dribbling; shooting accuracy; specialized centers.

Resumen

Objetivo: La investigación tuvo como objetivo identificar el impacto del entrenamiento de habilidades, específicamente en la precisión de tiro de jugadores de fútbol sub-15.
Metodología de la investigación: El investigador empleó un enfoque experimental con una muestra de jugadores de centros especializados afiliados al Ministerio de Juventud y Deportes. El investigador utilizó una prueba de habilidad (prueba de control, regate y tiro), además de implementar varios procedimientos administrativos para comenzar a implementar los mecanismos de investigación. Posteriormente, comenzó a aplicar los componentes curriculares a la muestra experimental el 1 de marzo de 2025, correspondiente al sábado, en el Estadio Internacional Al-Shaab/Centro Especializado de Bagdad. La implementación del experimento principal (enfoque de entrenamiento) en la muestra experimental duró un mes, con dos sesiones de entrenamiento por semana.
Resultados: Los resultados mostraron diferencias significativas en el impacto positivo del entrenamiento de habilidades especiales en el desarrollo de la precisión de tiro de jugadores menores de 15 años. Los análisis estadísticos revelaron un efecto significativo de la variable independiente sobre la variable dependiente, es decir, la precisión de tiro. Conclusiones: Los ejercicios compuestos son más importantes que el regate simple porque se utilizan en el desarrollo del jugador. Además, los jugadores que practican más de una habilidad podrán usarlas mejor durante un juego rápido y realista.

Palabras clave

Entrenamiento de habilidades especiales; control del balón; regate; precisión de tiro; centros especializados.

Introduction

Football is a team sport that has evolved, and its playing style, along with its rules and regulations, has evolved over time, leading to what we know today as modern football. This game is not just about creating and shooting goals, but also encompasses many important aspects related to tactical and physical aspects, including organization and general and specific preparation, which team coaches focus on to prepare players for the desired outcome.

In addition to the above, work and foundations at an early age are an important part of the overall development of football. This focus focuses on young players, i.e., from the early age groups to the advanced players, to establish a solid base of players capable of performing with high efficiency. This enables teams to achieve the best football and sporting achievements. This confirms that the use of standardized skill training, based on scientific foundations and specific expertise, helps players develop and enhance their performance in a positive way. When a football player possesses the ball, they require a wide range of game skills. This makes training challenging and enjoyable, as the primary goal of the player in possession of the ball is to maintain possession and to deliver it to advanced areas of the field to score goals against the opposing team. Therefore, specific skill training and a combination of multiple skills are essential to achieving optimal technique. (Dave Clarke, 2019: Hassan & Sahib, 2009: Thare Hani et al., 2025)

The combined skills of defense and attack can be used by both defensive and attacking players (Jasim, Hussein, and Ibrahim, 2021), and when gaining or losing the ball. Therefore, training deception, blocking, shooting, and other skills is not limited to attacking players only (when in possession of the ball), but can be used in both defense and attack. (Hassan & Sahib, 2009)

This is what the researcher aims to achieve in this study: to improve players' shooting and shooting skills, making them more capable of shooting goals. This is what distinguishes talented players from others.

A talented player is one who possesses personal qualities and high potential for technical creativity (skills and tactics) with and without the ball. (Al-Rubaie, 2015, p. 15: Al-Rubaie, 2015: Peréz Contreras et al., 2025)

Practicing games in a planned, purposeful, and deliberate manner increases a young player's ability to safely and fully cross the threshold of adolescence, especially if they acquire many of the skills that distinguish them on the field (Sentana et al., 2025: Mujica-Bermúdez et al., 2025). The researcher reviewed several previous studies in this regard, including the study (Clarke, 2019: González Alcántara et al., 2025), which emphasizes the importance of dynamic training for soccer players, as well as the study (Jasim et al., 2021: Ali, Hameed, and Ibrahim 2020: Akbar et al., 2025: Bendo et al., 2025), which focused on the use of assistive devices in training soccer skills. From the above, the importance of research is evident through designing and applying special skill training on football players because of ball control, dribbling, deception and shooting goals for the purpose of improving the player's ability to perceive changing situations on the field during the match and also the optimal shooting accuracy that helps in shooting goals, as coaches use conditional matches of specific points and physical, skill and tactical duties according to the goal of the basic training unit. (European, 2018: Yañez Sepulveda et al., 2025: Anam et al., 2025)

Research objective

The research aimed to identify the impact of skill training, specifically on the shooting accuracy of under-15 football players.

Method

Research Methodology

The researcher adopted in the research method the single-group experimental design with pre- and post-tests, i.e. without a control group, because the number of this age group is limited. In order to solve the research problem and to suit the work reality, the researcher determined the research community

as (18) players out of (60) players, i.e. a percentage of (25%) of the research community, as shown in Table (1).

Table 1. Shows the description of the research sample

Sample	Number	Percentage
Exploratory Sample	5	% 8.33
Main Experiment Sample	18	% 30
Research Population	60	% 100

These players are active in the specialized center affiliated with the Ministry of Youth and Sports. The research sample was deliberately selected due to their technical level, as well as the method of selecting them in these specialized centers. Furthermore, there is prior tracking of their real ages by experts and specialists supervising these centers, in order to evaluate the players in an ideal manner and determine their levels. The research group is a homogeneous group in terms of height, weight, and age.

Table 2. Shows the homogeneity of the sample.

Variables	Mean	Std. Deviations	Highest value	Lowest value	Skewness
Height	163.33	4.08	170.00	155.00	-0.055
Mass	56.88	3.34	62.00	50.00	-0.424
Age	14.40	0:22	14.90	14.10	0.455

In order to solve the problem, the researcher used the control, then evasion, then passing test, which is one of the standardized tests that has been proven effective in measuring these skills, in addition to the researcher conducting the scientific foundations of the test, as shown in Table (2), and the test is:

The researcher defined the following research test

Control, then dribbling, then shooting test (Khalifa, 2019)

- Test name: Control, then dribbling, then shooting accuracy (average) (The test was modified by the researcher by calculating the shooting accuracy scores, which are two scores for any of the two targets, with a distance of 1 m between the targets. The data was processed using the modified standard score law)
- Purpose of the test: To measure ball control, dribbling, and then shooting.
- Tools used: Soccer balls, stopwatch, measuring tape, cones, and miniature goals measuring 63 cm high and 120 cm wide.
- Test Specifications and Method:
  - Three meters behind the starting line is where the junior examinee is located. When the signal is heard, they quickly sprint to control the ball passed to them by the coach, who stands 2 meters away from them. They then perform a feint by moving their torso and dribbling the ball between two cones 1 meter apart. They then score with their preferred foot, or any part of it, at the goal, located 12 meters from the shooting line.
  - The junior examinee completes two full attempts on the two goals.
- Method of Recording (Time, Score):

The time taken for each goal attempt is determined starting when the ball is received and continuing until it crosses the goal line, in seconds.

- Each goal's shooting accuracy is noted in points (a goal is worth 2 points) (and a point when hitting the post).
- A single attempt is performed on both goals, and the average is taken.
- The best of the two attempts is used to determine the final (time-score).

- The data was processed using the modified standard score law.

Figure 1. Show the control, then dribbling, then shooting test

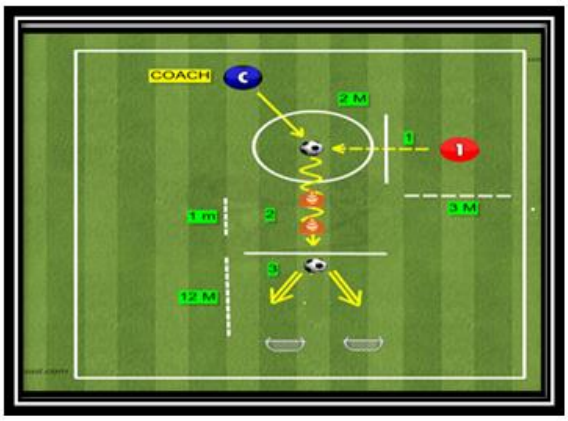


Table 3. Shows the scientific foundations for the validity of the te

Test	Validity	Stability		Objectivity	
	Percentage	stability coefficient	Sig	R	Sig
Control, then dribbling, then shooting test	% 90.90	**0.841	0.000	**0.832	0.000

As for the experiment, the researcher implemented several administrative steps and procedures to facilitate the researcher's work in order to begin implementing the research procedures. The researcher applied the curriculum components to the experimental research sample on March 1, 2025, corresponding to Saturday, at the Al-Shaab International Stadium/Specialized Center in Baghdad. The implementation of the main experiment (the training curriculum) on the experimental research sample took one month, with (8) training units, i.e., two training units per week, as shown in Appendix (1) and Appendix (2), which shows the training models. The researcher confirmed that the players completed the training units 100% of the time.

Therefore, the training load was measured according to the Borg measurement index (FIFA, 2018, 68).

Training load = Intensity x Volume

 Intensity / in terms of Borg's scale

 Volume / in terms of training time or repetitions

When calculating training time, it is considered (work + rest)

The unit of measurement for training load is Au (Arbitrary units)

Intensity × Volune = 10 ad

PRE × Time of Exertion (in mine) = Value in Arbitrary units (Au)

1. Calculating the training load according to the 2019 FIFA classifications (Andersen & Bengtsson , 2019)

Table 4. Shows the intensity levels.

Level	Level	Points	Intensity
1	Level 1	100 - Less than 300 Au	Less than low
2	Level 2	300 - Less than 600 Au	Low
3	Level 3	600 - Less than 900 Au	Medium
4	Level 4	900 - 1200 Au	High

As for how to estimate severity, Mike McQueen (2017) stated that severity levels are divided into three levels:

Table 5. Shows how to estimate severity.

Level	Level	Intensity	Points
1	Level 1	Low	3
2	Level 2	Medium	6 - 4
3	Level 3	High	7

Findings

The researcher used the SPSS statistical package to conduct statistical transactions and extract the results, as well as the Microsoft Office Excel program to check the numbers and data. We present the results in the form of tables as follows:

Table 6. Shows the arithmetic means, standard deviations, and calculated t-test values for the two tests (pre- and post-tests) in the control, dribbling, and shooting tests.

No.	Test	Pre-test		Post-test		Sum arithmetic mean of difference	Sum square arithmetic mean of difference	T value	Level Sig	Type Sig
		Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation					
1	Control, dribbling, and shooting	171.555	38.096	33.665	8.821	137.890	8.449	16.320	0.000	Sig

From the results shown in Table (6) for the control test, then evasion, then passing, in which the degree of measurement is degree/time, it appears to us that the value of the arithmetic mean in the pre-test was (171.55) with a standard deviation of (38.09), while the arithmetic mean in the post-test was (33.66) with a standard deviation of (8.82). The calculated (t) value was (16.320) at a degree of freedom of (17) and a significance level of (0.05), which has a significance level of (Sig) of (0.000), which is smaller than the value of the approved significance level of (0.05), which indicates the presence of significant differences between the pre-test and the post-test in favor of (the post-test) in comparison between the arithmetic mean of the pre-test and the post-test. The decrease in time in the post-test indicates the efficiency and speed of performance (Jasim et al., 2021).

Effect size Cohen's d:

Table 7. Shows the effect size

First arithmetic mean	Second arithmetic mean	Std. Deviations	Effect size
171.555	33.665	46.91	2.9

The effect size is large, being greater than 0.8, which demonstrates the effectiveness of using specific skill exercises that affect the shooting accuracy of under-15 football players. Cohen's coefficient shows that the difference and effect are large, which proves the effectiveness of the exercises used.

Discussion

We note that the difference between the pre-test and the post-test is significant, as the test depends on time, and the shorter the time, the greater the speed of performance, which gives the players greater efficiency. Despite the small size and number of sample members, the differences in the level of skill performance of the players are clearly significant through the numbers in Table (7).

The experimental group used and relied on a well-studied scientific curriculum that was designed by the researcher using a special skill training method and the selection of talented players who have a training age of (3-5) years was done according to scientific foundations and controls classified by the International and Iraqi Football Federations and that their training and development requires curricula that keep pace with scientific development in training (Jasim et al., 2021). The researcher believes that this method of special skill training, by relying on complex skills, each of (ball control, dribbling and deception, and shooting), all of these skills cannot be performed separately from one another, especially in football, as they require performing them in a complex and interconnected manner. Therefore, the

training prepared using the special skill training method had a clear impact on developing the skill aspect by focusing on the complex skills mentioned above. We note that the complex skill test corresponds to the prepared training units, which have the greatest weight in their performance (Hani et al., 2025). This is what (Musleh, 2020) indicated. Usually, special skill training is prepared in different spaces to achieve the desired goal. These are training exercises to refine the skill, reaching it to a high-level complex skill through good planning, which is considered the foundation (Jasim et al., 2021) for developing the skill level. Therefore, from the above, the researcher believes that the training curriculum with the method of special skill training has a positive impact in developing all of the complex skill aspects, and this appeared through the results of the notable variations between the pre- and post-tests, favoring the latter. This comes after the researcher used training units designed in a manner that best fits the players' ability and the age group (under 15 years old) (Jasim et al., 2023). This is what the researcher agrees with (Ragheb, 2020) that the use of special skill training helps to perform the complex skill in the optimal way (Hani et al., 2025).

Therefore, from the above, the researcher believes that special skill training has a positive effect in developing the complex skill aspects of the players, and this appeared through the results of the significant differences in the pre- and post-tests, in favor of the post-tests, whose average calculation was less than the pre-tests.

Conclusions

Compound drills are more important than single drills because they are used in player development. Furthermore, players who practice more than one skill will be able to use these skills better during fast-paced, realistic play.

Recommendations

The researcher recommends the use and training of a skill-based training method based on compound skills (ball control, dribbling and deception, and shooting), based on the findings of this study. This study also demonstrates its clear impact on developing players' skills by focusing on compound skills. Furthermore, this variety of training can be used to train other categories of football players, given their importance and the interplay of skills within them. This is the reality of modern football. The results of this study can be generalized to sports talent centers for talented players only.The researcher recommends the use of similar studies to this one to identify the differences between basic skills, one from another, and also to assess the level of skill development rates using compound skills through statistical methods and the use of the effect size equation.

Acknowledgements

None.

Financing

None.

References

Akbar, A., Syafitiri, F. U., Karim, Z. A., Nor Azmi, A. M., Hon, G. Y., Mahayunan, G. R., … Cahyani, F. I. (2025). Psychological and behavioral foundations: a focus on discipline and mental toughness in youth football development. *Retos*, 69, 638–645. https://doi.org/10.47197/retos.v69.115767

Al-Rubaie ,A. K. F. (2015). Foundations and Principles of Football Education and Training, (Iraq, Jaafar Al-Asami Modern Technical Printing)

Anam, K., Setiowati, A., Indardi, N. ., Irawan, F. A., Aditia, E. A. ., Amrulloh, A., … Kozina, Z. (2024). The effect of FIFA 11+ kids warm-up program on agility in football: An experimental study. *Retos*, 56, 631–638. https://doi.org/10.47197/retos.v56.105659

Andersen, A. and Bengtsson, A. (2019) Tranarutbildning UEFA B: Svenska Fotbollorbundets. Part 1. (Sweden: Urban Hammer)

Bendo, A., & Adili, D. (2025). The effects of a 6-month proprioception training program on speed in young football players. *Retos*, 71, 580–592. https://doi.org/10.47197/retos.v71.116098

Clarke, D. (2019). Rondos Green Star me dia LTd Company, RONDOS SPECIAL TRAINING GUIDE Australia.

Dave Clarke. (2019). RONDOS, Green Star me dia LTD company, RONDOS SPECIAL TRAINING GUIDE Australia.

European club Association (ECA). (2018) Reporton youth Academies in Europe. (Berlin: Olivier Jarosz)

FIFA. (2018) Small - Sided Games and Integrating Physical Preperation.

González Alcántara, J. A., Núñez González, J. L., Valenzuela Barrero, C., & Núñez Sánchez, F. J. (2025). Effects of 8 weeks in-season flywheel training on physical performance in female soccer players. *Retos*, 66, 479–490. https://doi.org/10.47197/retos.v66.111034

Hassan, A. T. and Sahib, S. J. (2009). Football Education and Training, 1st ed. (Basra, Al-Nakhil Press)

Jasim, H. T., Abed, S. R., & Ibrahim, S. S. (2023). Psychological Flexibility and Its Relationship to Competition Anxiety among Coaches of Iraqi First-Class Football Clubs. *Revista iberoamericana de psicología del ejercicio y el deporte*, *18*(4), 368-370.

Jasim, H. T., Hussein, A. H., & Ibrahim, S. S. (2021). Administrative climate and its relationship to psychological stress among workers in Baghdad Premier League football clubs. *Revista iberoamericana de psicología del ejercicio y el deporte*, *16*(6), 1-3.

Khalifa, A. A. A.(2019) . Evaluation and Testing, (Saudi Arabia, Umm Al-Qura University.

Mujica-Bermúdez, I., Vargas-Jerí, J. A., & Gutiérrez-Huamaní, O. (2025). Multilateral motor skills to optimize basic motor skills in 10-11 year-old schoolchildren . *Retos*, 66, 505–519. https://doi.org/10.47197/retos.v66.107628

Musleh, M. M. (2020). The Effect of Rondo in Small Spaces on the Learning of Shooting and Receiving Skills by Goalkeepers in Football Academies - Zagazig University - Faculty of Physical Education.

Peréz Contreras, J., Inostroza Ríos, F., Martin Bravo, N., Herrera Arcos, S., Aedo Muñoz, E., Merino Muñoz, P., Miranda Lorca, B. (2025). Comparison of external load between lines of play and differences between national and international competition in professional female soccer players. *Retos*, 66, 439–447. https://doi.org/10.47197/retos.v66.110976

Ragheb, M. M. (2020). The Effect of Tactical Maps for Positional Play to Create Space Using Rondo Training on the Effectiveness of Collective Offensive Performance of Football Players (Published Research), Egypt - Helwan University / Faculty of Physical Education for Girls.

Sentana, A. P. P., Kusuma, I. D. M. A. W., Suyoko, A., Prianto, D. A., Wulandari, F. Y., Bharlaman, M. B. F., … Himawan, A. (2025). Effects of resistance training and technical soccer exercises on anaerobic performance. *Retos*, 69, 94–101. https://doi.org/10.47197/retos.v69.113613

Thare Hani, A., Talib Abd, M., & Saad Ibrahim, S. (2025). An analytical study of the use of VAR technology and its relationship to the psychological hesitation of referees in the Iraqi Professional League. *Retos*, *66*, 1162-1176. https://doi.org/10.47197/retos.v66.114183

Yañez Sepulveda, R. A., Cubillos, P., Cortés-Roco, G., Reyes-Amigo, T., Hurtado-Almonacid, J., Navarro, F., Olivares-Arancibia, J. (2024). Soccer intensity according to playing position in a Chilean professional youth league team. *Retos*, 56, 345–352. https://doi.org/10.47197/retos.v56.103784

Authors and translators' details:

Wesam Najeeb Asleawa wissam.n@cope.uobaghdad.edu.iq Author

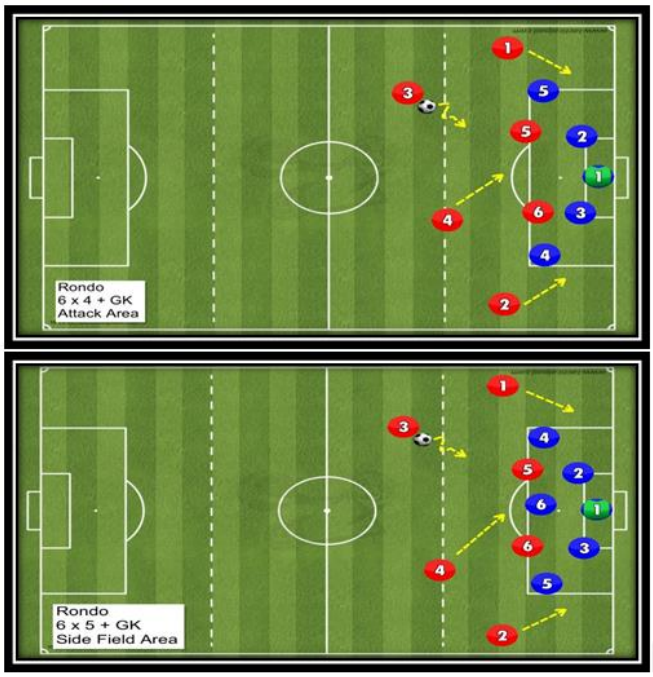
Appendix

Appendix 1.

Appendix 1.

No.	Training Unit	Day and Date	User Section Training Unit	Exercise Time	Intensity
1	Training Unit (1)	Saturday, March 1, 2025	Main Section	25 minutes	% 90 – 85
2	Training Unit (2)	Wednesday, March 5, 2025	Main Section	30 minutes	% 85 – 85
3	Training Unit (3)	Saturday, March 8, 2025	Main Section	28 minutes	% 85 – 85
4	Training Unit (4)	Wednesday, March 12, 2025	Main Section	25 minutes	% 90 – 85
5	Training Unit (5)	Saturday, March 15, 2025	Main Section	30 minutes	% 85 – 80
6	Training Unit (6)	Wednesday, March 19, 2025	Main Section	30 minutes	% 85 – 85
7	Training Unit (7)	Saturday, March 22, 2025	Main Section	25 minutes	% 90 – 85
8	Training Unit (8)	Wednesday, March 26, 2025	Main Section	28 minutes	% 85 – 85

Appendix 2. Sample training unit



Training Name: 6 X 4 + GK & 6 X 5 + GK

Playing Area: The opposing team's attacking zone (the attacking third). Play is played on a full field (training division).

Number of Players: 12 players per zone specified above (number of players in the division is 11 X 11).

Equipment Used: Jerseys + Training Shirts (red + blue) + Ball

Training Time: 20 minutes x 2 halves of the training match = 40 minutes total training

Rest Time: 10 minutes between repetitions

This training will be for three days during the twelfth week.

The total training session time will be 60 minutes, divided into three parts.

A training match divided into two halves (20 minutes each), with a rest period of 10 minutes between halves.

A warm-up for the training match (10 minutes).

This training will be for two days a week.

The training load calculation will be for the main part of the training session, excluding the warm-up and cool-down.

Training load = Intensity (Borg) x Volume (time or repetitions).

Training load = 50 x 6 minutes = 300 AU (low load).

Training Objectives:

1. Implement skills (ball control, dribbling, deception, and shooting)

2. Improve the player's mental ability to achieve automatic skill execution

Key Training Points:

1. Support, as shown in the figure

2. Communication between players

3. Emphasize the number of touches through one or two touches (the first is for clearance and the second is for shooting the ball to a teammate)

4. Vision (by getting the child used to holding their head up)

5. Implement Rondo drills on the field (full field and with legal dimensions)

Basic Training Rules:

1. The training will be implemented in the main part of the training session

2. The focus of the training will be on the attacking zone or the opposing team's attacking third, as shown in the figures above, by focusing on the main training points and training objectives mentioned above

3. Apply everything trained in the previous weeks

4. Play for 40 minutes divided into two halves of 20 minutes each

Note:

This signal indicates the player's movement with the ball. 

This signal indicates the player's movement without the ball.