



ORIGINAL SCIENTIFIC ARTICLE

## PRACTICAL GROUP DEFENSE EXERCISE DESIGN IN FOOTBALL GAME FOR 13-YEAR-OLD STUDENTS

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### Abstract

**Research purpose.** Football is popular in the society across the world. Everyone always watches football matches. Nowadays, there are many football schools for kids or young athletes. Thus, there is a need for a model of exercise that is appropriate for young athletes. This study aimed to create a model of group defense exercise in a football game. It referred to 13-year-old football school students. It was designed using psychological and physiological characteristics of the 13-year-old.

**Materials and methods.** The study participants were 120 football players aged 12 to 13. The study used a research and development method (R&D) through Borg and Gall model. Data was obtained from observation, interview and questionnaires. Data analysis techniques used expert judgments and three steps from Miles and Huberman, namely reduction of data, display of data, and making conclusions.

**Results.** The findings show that the model of defense exercise in football for a 13-year-old football school player has 13 variations of the exercise. It was created based upon the psychological and physiological characteristics of a young player.

**Conclusions.** The result of the study is a recommendation for teachers or coaches to improve the defense exercise in football as player needs.

**Keywords:** defense, exercise, football, group playing, 13-year-old.

### Introduction

Football is favoured by all levels of society in the world from children to parents, including Indonesia (Luxbacher, 2011). Even, football is also played by women with game designs according to women's physical conditions (Martínez-Lagunas et al., 2014). Football is not merely a physical activity in sports, but football also has a function as a form of entertainment, even football has become a lucrative business because of its huge profits. Football players are not only professional players, but also can use their football playing skills to enter the entertainment business. Many football schools for children and adolescents have been held in various regions as a form of non-formal education. They learn many technical forms to play football (García-Angulo et al., 2020).

However, Indonesia still has weaknesses in scoring football achievements. The fundamental national problem of football is the lack of attention to development at an early age (grassroots) and youth. Even though, the key to the success of a country's football takes care of the coaching process at an early age and youth level. FIFA and AFC through the program Vision Asia emphasizes the importance of coaching issues, especially at the grassroots level aged 6 to 13 years (Weinberg, 2015). It is a long-term athlete development (Balyi et al., 2013). So, what is the main important target in the Age-13 group is to prepare a better future football team and it is not only in an instant way through naturalizing foreigners (foreign nationals).

Football requires a lot of energy in every situation, both defensive and attacking. The basic technique is fundamental which all players must master to play football skillfully based on the multilateral ability of motion. Therefore, the aspect of training that needs to be developed in young children becomes the basis, especially the correct basic movement skills (techniques) with the application of good defence and attack,

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good basic physical abilities also support the achievement of good football games. Some factors affect the fundamental competencies of Motor Skills, including training, teaching, and experience (Valentini et al., 2016). It is very important that in defence, the interaction between players in defence is needed (Sautov et al., 2015). Creating of defence exercise model is be as a solution to build football skills for the young player.

Some previous research has related to the football finding. Many tactics are used to interact with training activities as a form of changing behaviour towards football (Travassos, Gonçalves, Marcelino, Monteiro, & Sampaio, 2014; Pulling, Twitchen, & Pettefer, 2016; Pulling et al., 2016). Interactive group transfer their characteristic in football playing (Ryoo et al., 2018). Visual interactive has been done to analyze the model of soccer learning (Bernard et al., 2017). To get interactive playing, it needs motivation. It is important motion in defence of football player (Okilanda et al., 2020). Therefore, model defence exercise has to design as young player psychology and characteristic (Najah & Rejeb, 2016) because each age level has different and competitive types of exercise football matches (Harley et al., 2010; Hary & Firdiansyah, 2019). Every player must make the right decisions in carrying out various defensive techniques (González-Villora et al., 2013). But, the success of defensive technique needs teamwork. The coach has to monitor the team coordination (Silva et al., 2016) in order the group exercise is a meaningful way in football playing. One of the model defence exercises in football is ergonomics model of exercise. This model demands the fitness of the player so that the players can develop different physiological exercise (Reilly, 2005). However, the development of a training program must differ according to the age identification of the football player (Williams, 2000; Tenga, Holme, Ronglan, & Bahr, 2010). Those researches describe the way of making a defence exercise program and comprehending the concept of young player age.

Currently, the study documented about developing a group defence exercise model in football and can contribute to solving the problems faced for the professional development and talent of football players aged 13 years. This research should be done for several reasons, namely: (1) providing an understanding of the exercises provided can be programmed properly. Trainers can provide defence training. (2) The coach has not used a specific training model to improve defence skills in playing football. (3) Trainers often apply the exercises after a direct warm-up to the technique without providing an understanding of the relevance of the defence situation. (4) The training given has not focused on one of the elements of the defence technique needed. (5) Not carrying out corrections when an error occurs or not giving examples by stopping corrections so that coaching learning occurs, (6) The training model used by the players lacks an impression of enthusiasm. Meanwhile, students have a lot of contact between the ball and the field and the number of players is reduced such as playing 5 against 5 in a field size of 40x30 m.

Therefore, this study aims to create a defensive exercise model in football activities referred to 13-year-old players. The model designed is adapted to the concept of psychological and physiological conditions for players aged 13 years and the playing environment for children aged 13. Thus, football players aged 13 years can develop skills in playing football appropriately according to their age development to become professional football players.

This research is also expected to provide practical benefits to the trainer regarding the concept of training that must be designed according to the physiological and psychological conditions of the players. Besides, each player from different countries has different character features and the development of players aged 12 or 13 is also very vulnerable to various changes. So, this research can be a reference in developing a defensive training model in football.

## Materials and methods

### Participants

The research was conducted at the South Sumatra football school from December 2019 until July 2020. Participants consisted of 120 football players aged 12 to 13 years. In trial phase 2 used 40 participants and trial phase 3 used 120 participants. The participants are taken from 16 football schools. The selection of participants from 16 schools as the subject of the product trial was based on the consideration of the similarity of characteristics with the same level of active practice. Besides, the participant in this study are football coach, and football expert.

### Study organization

The study uses a research and development method (R&D). Development research creates new products or modifies existing products in education or other disciplines (Creswell, 2012). It used Borg and Gall theory in doing the research (Gall et al., 2010). This study designed a model of group defence exercise in football activity that is suitable for the characteristics of football players aged 13 years.

Process of collecting data used observation, interview, and questionnaire. Observation activities were carried out in preliminary research to collect needs analysis data and during trial product. Interviews are used to obtain additional data to support trial data analysis. Meanwhile, the questionnaire was used to determine the needs of group defence exercise models in football activities.

**Table 1.** Procedure of Study That Adapted from Borg and Gall Model

Steps	Activities
Preliminary Step	<ol style="list-style-type: none"> <li>1. Initial data collection</li> <li>2. Needs analysis process</li> <li>3. Product planning</li> </ol>
Development Step	<ol style="list-style-type: none"> <li>1. Exercise defence modelling</li> <li>2. Formative Evaluation, referring to the Borg &amp; Gall model</li> <li>3. Trial phase (1)</li> <li>4. Peer assessments who have competence in football playing, materials, technology and exercise programs</li> <li>5. Revised stage (1) and judgment expert</li> <li>6. Revised stage</li> </ol>
Evaluation Step	<ol style="list-style-type: none"> <li>1. Trial phase (2)</li> <li>2. The evaluation scale is limited to 40 subjects</li> <li>3. Operational model revised (1)</li> <li>4. Trial phase (3) used 120 subjects</li> <li>5. Revised final model</li> <li>6. Dissemination of product</li> </ol>

## Procedures

The procedure of research used the Borg and Gall model. Here are the development research steps (table 1).

## Statistical analysis

Research data must be valid and can be trusted. Therefore, the process of verification of research data used triangulation checking. This study used triangulation of theory that refers to use more than one theoretical framework in analyzing data. The technique of data analysis has three steps, namely 1) data reduction is done by data selecting,

abstracting, and delivering the data that got from the field, 2) data display used to make category or classification of data and in this study, the data divided as a sequence of research procedure needed, and 3) conclusion drawing used to analyze the data and take conclusion (Miles & Huberman, 1994). Besides, the process of data analysis used judgment expert in the initial until the end.

## Results

The result of data analysis which has taken from needs analysis, documentation, interview, and observation describe in the table below:

**Table 2.** Recapitulation of Finding Data

Components	Finding
Preliminary study	1. The defence ability in football takes the form of group defensive exercise.
1. Literature study	2. The exercise model is consisting of exercise the core technical skills of small games and in the end, the exercises are carried out with situation games. 3. Learning football game is by repeating skills as a group will get the results of changes in playing performance for the better. For better technical skills, it is best to start with the development of the basic elements needed by practising and learning. 4. Defence skills learning is easier if it is learned in the form of pictures and simple visuals can also be analyzed when implemented
2. Needs analysis is taken from interview and questionnaire)	1. The teaching process is carried out by basic techniques of passing, dribbling and shooting. 2. Football defence exercise patterns have not been taught intensively 3. The exercise material has not been prepared before going to the field and learning activities so far are suddenly remembered in the field. 4. The exercise model is not yet specific, such as warm-ups do not have a dynamic pattern. It is still with a pattern long static. 5. The material in warm-up exercises still limited with playing patterns 11 vs 11 which has an impact on ability mastery hold still low 6. The training element does not have a target-specific exact defensive ability 7. The coach does not provide direct corrections to defensive abilities, because the correction is more directed at attacking patterns. Activities in the field have not provided special treatment for group defence exercise.
Expert Validation	1. The validation of three licensed football experts concluded that the 13-year-old football defensive exercise model was appropriate for use on the field.
1. Validation from football coach expert	2. From the questionnaire given to the three experts, the percentage was 93.83%. As for the advice from the three expert football coaches, namely organizing a defensive exercise model according to the number of people on the field and exercise activities can be carried out by all football players. 3. Three expert football coaches suggest that the assignment of game value rules can use a score on the game rules to be the goal of the exercise can increase the ability to survive as desired. 4. In the initial concept developed by the researcher, there were as many as 45 variations of the exercise model, after discussion with the experts, they suggested that it be simplified again. It presented the variety and number of players involved.
2. Peer assessment is taken from the football school coach	The football coaches in the school suggest that the model of defence exercise can be used by players. The success of the players in doing defence exercise in football must be given score so that they know the development of their defensive abilities in playing football.
1. Trial phase	1. The results of the small group trial provide suggestions, namely 1) the coach should be able to reward players who have done defensive exercise in football well, this can motivate a group. 2) Additional repetition of the exercise in implementing the previous model 3 times to 5-8 times. 3). Provide a sample program daily exercise.
a. Field trial results in a small group by sample as many as 40 people with the maximum score instrument 28	2. The results of observations in the field concluded that during the transition phase, players are still slow in changing the principle character from defence to attacking principle, and vice versa. 3. It needs to be additional game rules that make this transition phase appear in exercise sessions. 4. Starting Point in an exercise session is very crucial because when the coach will train players to defend, the player is given the ball to attack and after he loses the ball, then the coach will see if the change in attitude from attacking to defensive principles takes place quickly or slow.
b. Field trial results in a large group by sample as many as 120 people with the maximum score instrument 28	5. The result of the test in large group trial shows that player has a good score after using the model of group defence exercise. 6. The player has a high enthusiasm for football playing because the model of defence exercise is a new concept in the exercise of football. 7. Players can understand the instruction of defence exercise
4. Final model	The result of the trial and judgment expert concluded that model group defence exercise for player 13 ages called the model using "Do" and the final defence exercise model included 14 models.

The following is the creating of defence exercise in football playing. It is a final model that has been evaluated by expert and trial (table 3).

### Discussion

Table 2 know that the defensive exercise model has provided opportunities according to the needs of football players aged 13 in developing their talents and abilities to play football. The equipment used in this research is a ball, cone,

marker, pole, goal small, target banner, whistle and vest. The area used for conducting research must be considered a safety factor and the perfection of the field and away from objects, any harm to the football field is checked before starting exercise. The order of the game modes from the warm-up game to the core game has been systematic. The exercise models that are presented have their characteristics leading to exercise the football defence for player 13-ages. Besides, the involvement of coaches is to become an active part of children/athletes in exercise necessary for enthusiastic

**Table 3.** Group Defence Exercise Model in Football Game

Name if group defence exercises model "DO"	New Finding	Level
Model DO 1; Group Keeps Opponents In	It can be used in the game. The player must have speed and communication skills. Pros: The cooperation of the last defender can communicate Cons: If the key target is not known, it will find it difficult.	Moderate
Model DO 2; Group Holds one ball to reach the target	It can be used in the game. The player must have a good concentration and communication skills Pros: Eliminates the player's fear of the ball used the actual game situation. Cons: Lack of communication loses momentum to hold the ball/block	Difficult
Model DO 3; Group Holds the ball two goals	It can be used in the game. The player must divide the job description in football playing to fail the enemy Pros: Players have a way of thinking carefully about goals, cooperative communication is done by the defender Cons: If one of the defenders is not ready the ball, it is easily overlooked because the attacker has two targets	Easy
Model DO 4; Two-ball two-goal	It can be used in the game. The player must focus on the ball Pros: Sharpen focus by sharing defender duties. Cons: If there is no communication, an error occurs and the ball is lost block the ball	Moderate
Model DO 5; Holds the ball to target	It can be used in the game. Players must work together to thwart the opponent's attack Pros: like the real game, the defender has the main target of removing the ball to the left or right side Cons: the ball is not predictable in actual playing situations	Difficult
Model DO 6; Retrieves lost balls	It can be used in the game. Players have the right way of dealing with opponents through solid teamwork. Quick moves to retrieve the ball or take responsibility for lost balls from entering dangerous areas.	Moderate
Model DO 7; Holds front and side attacks	It can be used in the game. The player knows the opponent's attack from the front and the side The anticipation left and front of the player must kick the ball away.	Difficult
Model DO 8; holds off attacks in the zone	It can be used in the game. Players have cooperation to anticipate the opponent's movement into the defence area Located in their respective zones and can win the ball	Difficult
Model DO 9; Keeps your opponent in the zone	It can be used in the game. Players have cooperation with anticipation of speed and agility. Keeping the zone by pressing the opponent.	Difficult
Model DO 10; Hold the ball into the area of the shot	It can be used in the game. The player has the anticipation of a second attack by holding the ball in Stop the ball is from entering the area of the shot so that the defensive position is safe. Block if there is dangerous / fire.	Moderate
Model DO 11; Hold Shot Group	It can be used in the game. Players have their focus and work together Coordinate quickly with defenders to block attacks from opponents.	Moderate
Model DO 12; Group withstand side shots	It can be used in the game. Players have cooperation and anticipation with the speed of holding the ball The red one and two defenders share left or right block duties and the red three players work hard with a quick motion holding the left and right balls.	Difficult
Model DO 13; Group Keeping four goals	It can be used in the game. Collaboration players with joint strategy anticipation movements. Defensive players focus with the goal zone in the corner of the movement area blocking the ball and removing the ball from the area is the key to the defence	Difficult

players/athletes and become more focused during exercise. This study presented the collective action in each exercise (Gréhaigne et al., 1997). They have awareness of resource in the team (Feigean et al., 2018)

The findings of this study are relevant to other research that shows the concept of developing exercise in playing soccer for the age of 21. The coach has given the procedural knowledge in using the model of exercise football (García López et al., 2010). The variety of football defensive training in this product also provides variations in the number and position of goalposts as an exercise aid. This is in line with previous research that coaches must vary the use of exercise aids and various exercise patterns so that technical and tactical actions can be felt the same as in real game (Pulling et al., 2016; Gréhaigne & Godbout, 2014). However, this research is oriented to the basis of a drill (Jarrett, 2011). In simple terms, drill defensive football training is very effective in improving the defensive ability of Age-21 football players.

New findings in this study can be seen from the results of the analysis of the needs of football players aged 13 years, which refers to the development of individual abilities to perform the defensive exercise (Chan et al., 2016), but it implemented in group physical exercise. Besides, this product is oriented towards the development of psychology, physiology and talent of players at the age of 13 years, so that the level of speed, accuracy and coordination in playing the ball has been adjusted to the minimum limit of their exercise ability. It is the requirement of a professional player (Webb et al., 2020). Psychology aspect also determines the performance of football playing tactics (Vaz et al., 2019). Thus, increasing the ability to practice defensive can continue to the maximum extent of the player's ability. It means that the player is trained to be the leader for themselves in doing the sport. It is important to face the future challenge (Gould, Voelker, & Griffes, 2013; Cotterill & Fransen, 2016). Besides, the leadership can influence effective teamwork (Fransen et al., 2017). Besides, this study documented the creativity of the player in football playing. Because the effectiveness of sport creativity has developed but it is still limited with the role (Fardilha & Allen, 2020; Zahno & Hossner, 2020) and creativity is adaptation process on the environment (Obouef et al., 2020). It means that the players are allowed to make decisions about tactics should be used when facing different conditions in a match and unlike the theoretical concepts that are learned during exercise. It is intended for players to be professional and understand contextual factors that influence action during the game (Levi & Jackson, 2018; Furley & Memmert, 2018).

Therefore in exercise activities, it is necessary to describe the tactics of playing football so that it can influence decisions and skill application (González-Villora et al., 2013). Football defensive tactics have a special portion that must be repeated in exercise. So exercise activities must have a programmed exercise guide so that defence can be successfully achieved. DO defensive exercise model in the game of football for players aged 13 years which was developed and has been developed by researchers as a superior product for football schools. The purpose of creating this model is for coaches, lecturers and teachers in developing football exercise, and also to reference a defensive exercise model. DO defensive exercise model for players 13 years is made based on the level of need in activity practice in a football school.

Thus, the result of study recommended using the physical and technical skill in small games, like an 8-a-side game in the under 12 football player. It can build the young player ability (Bravo-Sánchez et al., 2017)

The product has advantages, namely: a) To reference the defence exercise model in-game football which has the character of a player aged 13. b) There are many types of variations in defence model training so that they can be selected to be applied according to the needs and characteristics desired by the coach in the game of football. c) The series of motion has a varied defence exercise pattern. d) Arrangement of a series of motion are ranging from easy to difficult levels e) The movement combines physical condition training, techniques and tactics, including speed, strength, accuracy, coordination, power, agility, flexibility and durability. f) Players are enthusiastic and get to know new ways of thinking in defensive exercise. g) Additional instruction from the trainer is an important key in completing the defensive task. h) DO defensive exercise model products in football games for 13 years players are effective and efficient in terms of equipment, time and cost. i) The coach is assisted by simple instructions in improving his mastery of football defensive tactics. j) This product is a special scientific contribution to football coaching.

While disadvantages have found in this product are a) In limited field trials, the number of samples who became players in research implementation was still small. b) Product perfection has not been reached 100%, because the diversity of exercise models designed has not fully met the needs of every football school in Indonesia. c) Facilities and infrastructure which are also training facilities used are limited considering the circumstances of each football school are different. d) Model drawings or photos in books still need improvement to make them more interesting. e) The characteristics that appear in the survival group exercise model are limited to the physiology and psychology of the 13-year-old players.

## Conclusions

The development of a DO defensive exercise model in football games for 13 years of age can be used as a form of exercise that has an effective and efficient effect for football coaches and football extracurricular teachers in maximizing the potential of defender players in Indonesia. Football is a sport that needs an archetype of play so that it can improve the quality of the game. In the end, football achievements in the future can be achieved. Besides, it can be used as an exercise model by the coach through paying attention to the rules of the picture and instructions, wherein its use, it is necessary to consider the condition of the players. This is taken into consideration in changing the pattern that initially the defensive task was only the defender, making all players have a role in defence. DO defensive exercise model is appropriate for all extracurricular teachers specifically for the sport of football. This product provides training offerings that can train defensive tactics following the cognitive and motor skills of the players.

From the advantages and disadvantages found, researchers who want to develop the same concept can also focus on the involvement of research subjects as a medium for product implementation to have a greater number. Research

activities can also involve informal schools or football clubs who want to develop defensive exercise skills for young players because the age of 13 can be a foundation from an early age in mastering or developing the ability to play football. Besides, research can also consider physical conditions in terms of body weight, height, food intake patterns, and the home environment in developing defence exercise patterns so that movement variations can have the right concept, it is not only in general from the psychological or physiological aspects of 13 years of age.

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### Conflict of interest

There is no conflicts of interest to declare.

### References

- Luxbacher, J. A. (2011). *Sepak Bola Edisi Kedua*. PT Rajagrafindo Persada.
- Martínez-Lagunas, V., Niessen, M., & Hartmann, U. (2014). Women's football: Player characteristics and demands of the game. *Journal of Sport and Health Science*, 3(4), 258-272. <https://doi.org/10.1016/j.jshs.2014.10.001>
- García-Angulo, A., Ortega-Toro, E., Giménez-Egido, J. M., García-Angulo, F. J., & Palao, J. M. (2020). Short-term effect of competition rule changes on collective effectiveness and self-efficacy in youth football players. *Psychology of Sport and Exercise*, 49, 101688. <https://doi.org/10.1016/j.psychsport.2020.101688>
- Weinberg, B. (2015). *Asia and the future of football: The role of the Asian football confederation*. Routledge.
- Balyi, I., Way, R., & Higgs, C. (2013). *Long-Term Athlete Development*. Human Kinetics. <https://us.humankinetics.com/products/long-term-athlete-development>
- Valentini, N. C., Logan, S. W., Spessato, B. C., de Souza, M. S., Pereira, K. G., & Rudisill, M. E. (2016). Fundamental Motor Skills Across Childhood: Age, Sex, and Competence Outcomes of Brazilian Children. *Journal of Motor Learning and Development*, 4(1), 16-36. <https://doi.org/10.1123/jmld.2015-0021>
- Sautov, R. T., Abildbekov, S. A., Zaubekov, B. Z., & Shankulov, Y. (2015). Methodology of Increasing the Efficiency of Game Activity of Football Players of the Top Skills. *Procedia - Social and Behavioral Sciences*, 190, 207-210. <https://doi.org/10.1016/j.sbspro.2015.04.936>
- Travassos, B., Gonçalves, B., Marcelino, R., Monteiro, R., & Sampaio, J. (2014). How perceiving additional targets modifies teams' tactical behavior during football small-sided games. *Human Movement Science*, 38, 241-250. <https://doi.org/10.1016/j.humov.2014.10.005>
- Pulling, C., Twitchen, A., & Pettefer, C. (2016). Goal Format in Small-Sided Soccer Games: Technical Actions and Offensive Scenarios of Prepubescent Players. *Sports*, 4(4), 53. <https://doi.org/10.3390/sports4040053>
- Ryoo, M., Kim, N., & Park, K. (2018). Visual analysis of soccer players and a team. *Multimedia Tools and Applications*, 77(12), 15603-15623. <https://doi.org/10.1007/s11042-017-5137-4>
- Bernard, J., Ritter, C., Sessler, D., Zeppelzauer, M., Kohlhammer, J., & Fellner, D. (2017). Visual-interactive similarity search for complex objects by example of soccer player analysis. *VISIGRAPP 2017 - Proceedings of the 12th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications*, 3, 75-87. <https://doi.org/10.5220/0006116400750087>
- Okilanda, A., Dlis, F., Humaid, H., & Putra, D. D. (2020). Perbedaan Pengaruh Metode Latihan Dan Motivasi Berlatih Terhadap Teknik Dasar Sepakbola Sekolah Sepakbola Beji Timur U-13. *Jurnal Educatio FKIP UNMA*, 6(1), 80-89. <https://doi.org/10.31949/educatio.v6i1.280>
- Najah, A., & Rejeb, R. Ben. (2016). Psychological Characteristics of Male Youth Soccer Players: Specificity of Mental Attributes According to Age Categories. *Advances in Physical Education*, 06(01), 19-26. <https://doi.org/10.4236/ape.2016.61003>
- Harley, J. A., Barnes, C. A., Portas, M., Lovell, R., Barrett, S., Paul, D., & Weston, M. (2010). Motion analysis of match-play in elite U12 to U16 age-group soccer players. *Journal of Sports Sciences*, 28(13), 1391-1397. <https://doi.org/10.1080/02640414.2010.510142>
- Hary, V., & Firdiansyah, B. (2019). Training Model for Attacking in Football of 16 Years Old. *JUARA: Jurnal Olahraga*, 5(1), 8-18. <https://doi.org/10.33222/juara.v5i1.600>
- González-Villora, S., García-López, L. M., Gutiérrez-Díaz, D., & Pastor-Vicedo, J. C. (2013). Tactical awareness, decision making and skill in youth soccer players (under-14 years). *Journal of Human Sport and Exercise*, 8(2 SUPPL), 412-426. <https://doi.org/10.4100/jhse.2012.82.09>
- Silva, P., Chung, D., Carvalho, T., Cardoso, T., Davids, K., Araújo, D., & Garganta, J. (2016). Practice effects on intra-team synergies in football teams. *Human Movement Science*, 46, 39-51. <https://doi.org/10.1016/j.humov.2015.11.017>
- Reilly, T. (2005). An ergonomics model of the soccer training process. *Journal of Sports Sciences*, 23(6), 561-572.
- Williams, A. M. (2000). Perceptual skill in soccer: Implications for talent identification and development. *Journal of Sports Sciences*, 18(9), 737-750. <https://doi.org/10.1080/02640410050120113>
- Tenga, A., Holme, I., Ronglan, L. T., & Bahr, R. (2010). Effect of playing tactics on goal scoring in norwegian professional soccer. *Journal of Sports Sciences*, 28(3), 237-244. <https://doi.org/10.1080/02640410903502774>
- Creswell, J. W. (2012). *Research, educational planning, conducting, and evaluating quantitative and qualitative research*. Pearson Education.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2010). *Educational research an Introduction seventh Edition*. Wiley.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis; An Expanded Sourcebook*. Sage Publication.
- Gréhaigne, J. F., Bouthier, D., & David, B. (1997). Dynamic-system analysis of opponent relationships in collective actions in soccer. *Journal of Sports Sciences*, 15(2), 137-149. <https://doi.org/10.1080/026404197367416>

- Feigean, M., R'Kiouak, M., Seiler, R., & Bourbousson, J. (2018). Achieving teamwork in naturalistic sport settings: An exploratory qualitative study of informational resources supporting football players' activity when coordinating with others. *Psychology of Sport and Exercise*, 38, 154-166. <https://doi.org/10.1016/j.psychsport.2018.06.008>
- García López, L. M., Gutiérrez Díaz del Campo, D., Abellán Hernández, J., González, S., & Webb, L. A. (2010). Expert-novice differences in procedural knowledge in young soccer players from local to international level. *Journal of Human Sport and Exercise*, 5(3), 444-452. <https://doi.org/10.4100/jhse.2010.53.14>
- Gréhaigne, J. F., & Godbout, P. (2014). Dynamic Systems Theory and Team Sport Coaching. *Quest*, 66(1), 96-116. <https://doi.org/10.1080/00336297.2013.814577>
- Jarrett, K. (2011). The Effectiveness of Drill Strategies to Survive Football Strategies Under 21. *Asian Journal of Sports Science*, 8(1), 1-17.
- Chan, H. C. K., Fong, D. T. P., Lee, J. W. Y., Yau, Q. K. C., Yung, P. S. H., & Chan, K. M. (2016). Power and endurance in Hong Kong professional football players. *Asia-Pacific Journal of Sports Medicine, Arthroscopy, Rehabilitation and Technology*, 5, 1-5. <https://doi.org/10.1016/j.asmart.2016.05.001>
- Webb, T., Dicks, M., Brown, D. J., & O'Gorman, J. (2020). An exploration of young professional football players' perceptions of the talent development process in England. *Sport Management Review*, 23(3), 536-547. <https://doi.org/10.1016/j.smr.2019.04.007>
- Vaz, M. S., Ribeiro, Y. S., Pinheiro, E. S., & Del Vecchio, F. B. (2019). Psychophysiological profile and prediction equations for technical performance of football players. *Revista Brasileira de Ciências Do Esporte*, 41(2), 215-221. <https://doi.org/10.1016/j.rbce.2018.04.009>
- Gould, D., Voelker, D. K., & Griffes, K. (2013). Best coaching practices for developing team captains. *Sport Psychologist*, 27(1), 13-26. <https://doi.org/10.1123/tsp.27.1.13>
- Cotterill, S. T., & Fransen, K. (2016). Athlete leadership in sport teams: Current understanding and future directions. *International Review of Sport and Exercise Psychology*, 9(1), 116-133. <https://doi.org/10.1080/1750984X.2015.1124443>
- Fransen, K., Haslam, S. A., Mallett, C. J., Steffens, N. K., Peters, K., & Boen, F. (2017). Is perceived athlete leadership quality related to team effectiveness? A comparison of three professional sports teams. *Journal of Science and Medicine in Sport*, 20(8), 800-806. <https://doi.org/10.1016/j.jsams.2016.11.024>
- Fardilha, F. de S., & Allen, J. B. (2020). Defining, assessing, and developing creativity in sport: A systematic narrative review. *International Review of Sport and Exercise Psychology*, 13(1), 104-127. <https://doi.org/10.1080/1750984X.2019.1616315>
- Zahno, S., & Hossner, E.-J. (2020). On the Issue of Developing Creative Players in Team Sports: A Systematic Review and Critique From a Functional Perspective. *Frontiers in Psychology*, 11, 575475. <https://doi.org/10.3389/fpsyg.2020.575475>
- Oboeuf, A., Hanneton, S., Buffet, J., Fantoni, C., & Labiadh, L. (2020). Influence of Traditional Sporting Games on the Development of Creative Skills in Team Sports. The Case of Football. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.611803>
- Levi, H. R., & Jackson, R. C. (2018). Contextual factors influencing decision making: Perceptions of professional soccer players. *Psychology of Sport and Exercise*, 37, 19-25. <https://doi.org/10.1016/j.psychsport.2018.04.001>
- Furley, P., & Memmert, D. (2018). Can creative role models prime creativity in soccer players? *Psychology of Sport and Exercise*, 37, 1-9. <https://doi.org/10.1016/j.psychsport.2018.03.007>
- Bravo-Sánchez, A., Abián-Vicén, J., & Abián, P. (2017). Analysis of the physical and technical differences between 7-a-side and 8-a-side game modalities in official under 12 soccer matches. *International Journal of Performance Analysis in Sport*, 17(4), 545-554. <https://doi.org/10.1080/24748668.2017.1366760>

## ПРАКТИЧНА МОДЕЛЬ ВПРАВИ З ВЕДЕННЯ ГРУПОВОГО ЗАХИСТУ ПІД ЧАС ГРИ У ФУТБОЛ ДЛЯ 13-РІЧНИХ УЧНІВ

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Авторський вклад: А – дизайн дослідження; В – збір даних; С – статаналіз; D – підготовка рукопису; E – збір коштів

Реферат. Стаття: 8 с., 3 табл., 40 джерел.

**Мета дослідження.** Футбол має популярність у суспільстві в усьому світі. Кожен завжди дивиться футбольні змагання. Сьогодні існує багато футбольних шкіл для дітей або юних спортсменів. Отже, потрібна модель вправи, яка підходить для юних спортсменів. Це дослідження мало на меті створення моделі вправи з ведення групового захисту

під час гри у футбол. Вона передбачала участь 13-річних учнів футбольної школи. Модель була побудована з урахуванням психологічних і фізіологічних характеристик, при-таманних 13-річним.

**Матеріали та методи.** До складу учасників увійшли 120 футболістів віком 12–13 років. У дослідженні вико-

ристовували науково-дослідницький метод на базі моделі Борґа та Галла. Дані одержували зі спостережень, співбесід та анкет. Методи аналізу даних включали оцінки експертів і три кроки з підходу до аналізу даних Майлза та Губермана, а саме: скорочення обсягу даних, відображення даних та побудова висновків.

**Результати.** Результати показують, що модель вправи з ведення захисту у футболі для 13-річного гравця футбол-

ної школи має 13 варіантів цієї вправи. Вона створена з урахуванням психологічних і фізіологічних характеристик юного гравця.

**Висновки.** Результатом дослідження є рекомендація вчителям або тренерам оптимізувати вправу з ведення захисту у футболі відповідно до потреб гравця.

**Ключові слова:** захист, вправа, футбол, групова гра, 13-річні.

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