

Development of a paired passing training model to improve soccer passing skills in planet soccer school Palembang athletes

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Abstract

This study aims to: (1) Develop a paired passing training model to improve soccer passing skills in Planet Soccer School Palembang athletes. (2) Determine the level of feasibility of the paired passing training model to improve soccer passing skills in Planet Soccer School Palembang athletes. (3) Determine the level of effectiveness of the paired passing training model to improve soccer passing skills in Planet Soccer School Palembang athletes. This research is a development research using the Borg and Gall research and development model, which involves the stages of model development with ten development steps/phases, including potentials and problems, data collection, product design, product validation, design revisions, small-scale trials, small-scale revisions, large-scale trials, large-scale revisions, and the final product. Soccer learning experts and coaching practitioners carried out validation. Trials consisted of small-scale and large-scale trials and effectiveness tests-data collection techniques included questionnaires for assessing skills and teamwork instruments. Data analysis techniques used qualitative descriptive analysis and quantitative data analysis. The results of the paired-passing training model to improve soccer passing skills in Planet Soccer School Palembang athletes were deemed feasible; small-scale trial results showed a 84% valid rate for passing skills without revision, and large-scale trials showed a 95.2% valid rate for passing skills without revision.

Keywords: training model, passing skills, pair passing

INTRODUCTION

Sports have a very important role in life. In the modern era, it is very difficult to separate humans from sports, whether to achieve success or to maintain physical condition and stay healthy. Sport is one of the efforts to improve the quality of human resources, so the government makes it a tool for National Development. Law Number 3 of 2005 explains that national sports aim to maintain and improve health and fitness, enhance achievement and human quality, instill moral values and noble character, foster sportsmanship, discipline, and strengthen national unity and integrity, and strengthen national resilience, dignity, and national honor.

In the game of football, the execution of tactical actions is heavily geared toward achieving the ultimate goal of scoring. Empirical evidence suggests that optimizing effective passing metrics, including total pass volume, the length of sequential pass combinations, and overall passing success rates significantly elevates team performance and influences match outcomes (Dunton et al., 2020). Structurally, passing is defined as a complex perceptual-motor skill that requires the integration of receiving the ball and transferring it to a teammate under rigorous spatial and temporal constraints (Travassos et al. dalam Oppici et al., 2019). To foster these complex motor capabilities, structural intervention during early-stage development is paramount, as early youth athletic training establishes

the foundational blueprint for long-term senior performance (Nasrulloh et al., 2021). Consequently, ensuring that fundamental technical actions are thoroughly refined during these formative youth stages enables young players to successfully transition into advanced tactical frameworks (Atiq et al., 2020).

In soccer, various actions are carried out; given the goal of scoring, passing, and control techniques aim to create goal opportunities. Basic soccer techniques, if polished with the right needs and conditions, can have a clear and positive impact on the progress of soccer during training and matches, as every soccer athlete masters basic techniques, especially passing (Atiq et al., 2020). Travassos et al. (Oppici et al., 2019) state that passing is a complex perceptual-motor skill that involves ball reception and passing to teammates. Spatial and temporal information about the ball and the attacker-defender interaction shape the emergence of passing opportunities during matches.

Cultivating proficient football skills requires a diverse spectrum of passing and kicking training modalities. It is posited that coaches must proactively incorporate varied drills to mitigate training monotony and burnout, particularly during protracted macrocycles of athletic preparation (Bozkurt & Kucuk dalam Sibarani & Manurung, 2021). A repetitive or uninspired training regimen hinders youth players from mastering fundamental passing mechanics. Corroborating this perspective, Mikail and Suharjana (2019) observe that a deficit in training variations within football schools (SSB) frequently induces psychological fatigue and disengagement among young athletes. Addressing this technical stagnation through innovative drills is vital, especially since primary technical competencies, including passing, receiving, and ball control, serve as the definitive benchmarks that distinguish elite youth competitors from their non-elite counterparts (Nasrulloh et al., 2021). Furthermore, structural training designs must also account for physiological workloads, as acute physical exhaustion drastically impairs passing accuracy, showing the steepest decline at maximum fatigue thresholds (Mulazimoglu, 2016).

The passing accuracy training method focuses on improving passing accuracy in soccer games, as passing is the technique most frequently used with the ball. Specific exercises for developing target accuracy, a complex psychomotor quality, are primarily used in training (Kanishchev et al., 2021). Besides that, passing is essential in soccer because accurate passing enhances team gameplay, both in organizing attacks and developing the game (Siagian, 2021).

As a reference for professional coaches training soccer clubs, coaches know the strengths and weaknesses of each athlete they train. Coaches can also read the opponent's game during matches. In which coaches must also have attractive gameplay to provide as many points as possible. In this case, strong literacy is needed for coaches to improve a soccer game, specifically in passing. Passing performed in a game, if done repeatedly under the same conditions, will be very easily read by opposing players; thus, passing variations are needed to provide good passing. With the development of good passing skills, teamwork in a soccer club will improve.

As of March 2026, the author has re-analyzed the following problems found based on the results of interviews originally conducted in June 2022 with the Coach of Planet Soccer School Palembang: "Training very much needs more varied passing exercises accompanied by good training periods. Passing training conducted so far is less varied and athletes state they still experience problems in passing; besides that, passing not supported by a good training model will not achieve maximum results. The lack of variation in the Planet Soccer School Palembang training model impacts the level of athlete boredom in performing passing exercises, and also impacts the difficulty of athletes in mastering those passing skills. A similar thing happened at Planet Soccer School: "here we really need a training model, specifically in the field of passing. Besides because children often feel bored during training, another impact is that children's passing is still not maximal. With that, it will greatly affect compactness during matches. Training athletes aged 15-18 years is a challenge; we are required to be patient and meticulous. I think a training model like this is good for children, specifically for training passing skills during matches." (Interview with Planet Soccer School coach with AFC C License, Mr. Rionardo Ayubi Tama, July 20, 2022, at 16:30 WIB).

Table 1. Pre-Test Data of Passing Skills

No.	Instrument Statement	Number (Score)	Maximum Score	%
1.	Inside-foot pass within 5 meters.	87	112	78%
2.	Inside-foot pass within 10 meters.	78	112	70%
3.	Inside-foot pass within 15 meters.	74	112	66%
4.	Outside-foot pass within 5 meters	82	112	73%
5.	Outside-foot pass within 10 meters	72	112	64%

6.	Outside-foot pass within 15 meters	83	112	74%
7.	Instep pass within 5 meters	83	112	74%
8.	Instep pass within 10 meters	78	112	70%
	Rata-Rata Keseluruhan	79,6	112	71,12%

The main problem is the suboptimal passing skills of soccer athletes in Palembang caused by the lack of variation and training models. Based on the interview results, a pre-test was then conducted with 28 Planet Soccer School athletes. These pre-test results are used to assess soccer-playing skills and teamwork. The passing skill pre-test result was 71%. This shows that there are still deficiencies in passing skills and a need to increase these variables through the development of a model. Based on this problem, as a first step, the researcher feels it is important to develop a soccer passing training model specifically for coaches to develop passing skills and teamwork in soccer. With this problem, the researcher is interested in developing a paired passing training model with the research title "Development of a Paired Passing Training Model to Improve Passing Skills in Planet Soccer School Palembang Athletes."

METHOD

Development Model

Development research is indeed directed at finding updates and excellence in the context of effectiveness, efficiency, and productivity. According to Sugiyono (2018), research and development (R&D) is a research method that produces products and tests their effectiveness. This study aims to develop a specific product and test its feasibility. Furthermore, learning research and development procedures basically consist of two main objectives: (1) product development and testing product effectiveness, and (2) testing product effectiveness in achieving goals. The researcher developed a paired-passing training model to improve soccer-playing skills and teamwork among soccer athletes in Palembang. The development of the paired passing training model to improve soccer-playing skills and teamwork among soccer athletes in Palembang was carried out in several stages:

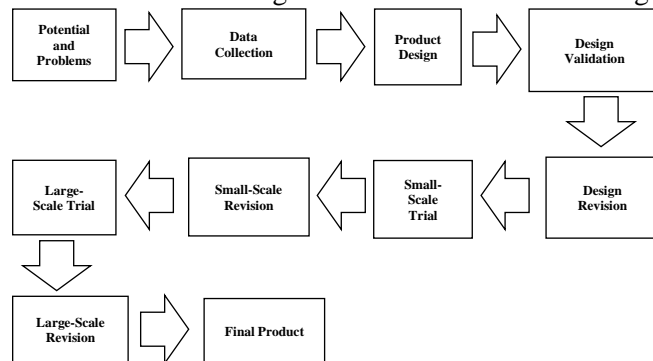


Figure 1. Steps for Using the Research and Development Method (Source: Sugiyono, 2018:404)

Elaboration of Each Stage

This research identifies the potential to develop a paired-passing training model, based on a needs analysis that underscores the urgency of increasing game effectiveness and goal-scoring opportunities through mastery of precise passing techniques. The process began with data collection through observation and in-depth interviews with coaches at Planet Soccer School Palembang, which served as the basis for formulating the product design. Development procedures were carried out systematically, from the design layout stage, oriented towards training objectives, to the expert validation stage by academics and practitioners, to ensure the model's feasibility and functionality before design revisions were made based on constructive input.

Product implementation underwent a series of gradual trials, beginning with a small-scale trial on 9 athletes to identify initial deficiencies through field notes and user response questionnaires. After improvements were made during the small-scale revision stage, the product was applied in a large-scale trial involving 28 athletes at Planet Soccer School Palembang to test the consistency of the model's work system under wider real-world conditions. Every obstacle encountered in this phase was re-evaluated during the large-scale revision stage to improve the quality of the training model instrument. The final

stage of this research produced a paired-passing training model that has been tested for its technical and methodological effectiveness.

Based on a comprehensive feasibility study, this product was found to be valid and feasible for mass-scale production and implementation as an innovative training reference for athletes. The main focus of this development result is to create a training pattern that not only improves the athlete's motor skills but also provides a motivational, systematic training environment.

RESULTS

Potential and Problems: Based on the results of initial observations regarding the training process carried out on Planet Soccer School Palembang soccer school athletes, problems were obtained, specifically the training model used and the low quality of athlete passing, where the lack of training model variations performed at PUSRI NPK soccer school can impact the level of athlete boredom in performing passing exercises, and also impact the difficulty of athletes in mastering those passing skills. Besides, because children often feel bored during training, their performance remains suboptimal. With that, it will greatly affect compactness or teamwork during matches.

Data Collection: At this stage, the researcher analyzed the development of the paired passing training model at Planet Soccer School Palembang. Based on the analysis results, the researcher developed a paired passing training model to improve the passing skills of Planet Soccer School Palembang athletes, thereby creating training that motivates soccer athletes and instills a sense of spirit in them during a good game. Furthermore, this paired-passing training model is expected to reduce monotonous training.

Product Design: The next stage in this research is designing the product. In this case, product design involves creating a "paired passing training model". The paired passing training model was developed into a training module.

Design Validation: This product is named "development of a paired passing training model". The product was developed to create a new atmosphere in training and to instill spirit and motivation in athletes. Based on the resulting data, the researcher developed the product to improve passing skills at Planet Soccer School Palembang. This initial product was validated by 5 experts, namely 2 learning experts and 3 practitioner coaches. The Soccer Learning Experts were Dr. Widiyanto, S.Or., M.Kes (Yogyakarta State University), and Dr. M. Haris Satria, M.Pd. (Bina Darma University Palembang) . The practitioner coaches were Jumali Yusuf (Kobar Junior - AFC B License), Musharyanto (SSB PUSRI NPK - AFC C License), and Rionardo Ayubi Tama (Planet Soccer School - AFC C License).

Design Revision: The product designed to improve the skills and motivation of athletes at Planet Soccer School Palembang was declared Highly Feasible, with an achievement percentage of 93.55% (score: 116 out of 124). This result was obtained through the validation of five experts, who assessed that this training model is very communicative, low-risk, and effective in providing non-monotonous training variations for athletes.

Table 3. Assessment by Soccer Learning Practitioners and Experts

No.	Question	Score	Total
1.	Correct sentence writing according to EYD	3	4
2.	Sentences represent the message or information being conveyed	4	4
3.	Sentences are simple and to the point	4	4
4.	Language used is communicative	4	4
5.	Cover is attractive	3	4
6.	Cover image matches the book's theme	3	4
7.	The choice of cover color is appropriate	4	4
8.	The cover title is easy to understand	3	4
9.	The bibliography presents the correct sequence	3	4
10.	Uses terminology that aligns with the main concept	4	4
11.	Presents a complete structure of sections	4	4
12.	Images are easy to understand	4	4
13.	Colored images	4	4
14.	Images are clear and detailed	4	4
15.	Image size is appropriate	3	4

16.	Provides a clear explanation of images	4	4
17.	Language selection when using the material	4	4
18.	Consistent use of sports terminology	4	4
19.	The language used is straightforward to understand	4	4
20.	Exercise variations suit the characteristics of soccer athletes	4	4
21.	Can be used by skilled and unskilled soccer athletes	4	4
22.	Can be used by both male and female soccer athletes	3	4
23.	Can be used by all groups	3	4
24.	The media used is safe	4	4
25.	Appropriate selection of training media for soccer athletes	4	4
26.	Training models minimize injury	4	4
27.	Facilities and infrastructure used	4	4
28.	Variations used are interesting	4	4
29.	Variations used to motivate soccer athletes' ball	4	4
30.	Encourage active soccer athletes to move	4	4
31.	A variety of exercises that are not monotonous	4	4
	Amount	116	124

Small-Scale Trial: After validation and several improvements, this product was ready for testing—the Trial aimed to gather input on the product under development and to obtain the desired data. The trial results will be used to inform the researcher's product improvements. This small-scale Trial involved 9 athletes. Athletes were given instructions using the developed model and the Trial's course so that experts could observe the results of soccer training with the paired-passing model. After this Trial, the researcher returned to consult with experts to assess whether the developed product was feasible to use as training material and continue to large-scale trials. Small-scale trials were conducted on 9 athletes at Planet Soccer School Palembang. During the explanation, athletes paid close attention and easily understood the implementation of the explanation used in the training model. During the Trial, students were observed paying close attention to the training model displayed. The results of the small-scale Trial regarding the paired passing training model to improve passing skills was 84%, which falls into the good/feasible category; therefore, this product can be tested in the next stage.

Table 4. Results of the Small-Scale Trial Questionnaire on the Passing Skills Variable

No	Question	Score	Total	%
1	The athlete kicks the ball within 10 meters	30	36	83%
2	The athlete kicks the ball into a goal composed of balls within a distance of 10 meters	28	36	78%
3	The athlete gets the signal "Yes," then turns around and kicks the ball towards the goal in the form of a kun	31	36	86%
4	The athlete kicks the ball within 10 meters	30	36	83%
5	The athlete gets the signal "Yes," then turns around and kicks the ball.	28	36	78%
6	The athlete gets the signal "Yes," then turns around and kicks the ball towards the goal in the form of a kun	31	36	86%
7	The athlete kicks the ball within 10 meters	31	36	86%
8	The athlete kicks the ball into a goal composed of balls within a distance of 10 meters	33	36	92%
	Average Percentage	84%		
	Category	Good/decent		

Small-Scale Revision: The assessment results for the paired passing training model product from the soccer learning expert in the questionnaire sheet indicated that the product was overall very good, and there was no input from the soccer learning expert. The assessment results from the practitioner coach also stated that the product was overall very good, and there was no input from the practitioner expert.

Large-Scale Trial: After running the small-scale Trial, the development of the paired passing training model to improve passing skills at Planet Soccer School Palembang was deemed feasible for

large-scale testing. The large-scale Trial involved 28 athletes. Athletes were given game instructions, and the Trial was video-recorded so experts could observe the training process using the developed training variations. After this Trial, the researcher returned to consult with experts to assess whether the developed product was already feasible to use as training material. During the explanation, athletes paid close attention and easily understood the implementation of the explanation used in the training model. During the Trial, students were observed paying close attention to the training model displayed. The results of the large-scale Trial was 95.2%, which falls into the good/feasible category; therefore, it can be interpreted that this product can be tested in the next stage.

Table 5. Results of the Large-Scale Trial Questionnaire for the Soccer Playing Skills Variable

No.	Question	Score	Total	%
1.	The athlete kicks the ball within 10 meters	104	112	93%
2.	The athlete kicks the ball into a goal composed of balls within a distance of 10 meters	105	112	94%
3.	The athlete gets the signal "Yes," then turns around and kicks the ball towards the goal in the form of a kun	106	112	95%
4.	The athlete kicks the ball within 10 meters	108	112	96%
5.	The athlete gets the signal "Yes," then turns around and kicks the ball.	107	112	96%
6.	The athlete gets the signal "Yes," then turns around and kicks the ball towards the goal in the form of a kun	108	112	96%
7.	The athlete kicks the ball within 10 meters	107	112	96%
8.	The athlete kicks the ball into a goal composed of balls within a distance of 10 meters	108	112	96%
	Average Percentage	95,2%		
	Category	Very good/decent		

Large-Scale Revision: The product assessment results from the soccer learning expert and practitioner coach in the questionnaire sheets indicated that the Product was overall very good, and there was no input from either the soccer learning expert or the practitioner coach.

Final Product: After experts and changes validated the initial Product, based on input and suggestions, the Product was declared feasible for testing. Small-scale trials were conducted with Planet Soccer School Palembang athletes, and the Product was then reassessed by experts, with changes made based on their input and suggestions. The next stage was the large-scale trial carried out on Planet Soccer School Palembang athletes. The Product was declared feasible for use as soccer training for junior athletes aged 15-18 years. The researcher created the paired-passing training model as a guide for athletes' training implementation, serving as the final Product.

DISCUSSION

The development of this paired-passing training model is a strategic solution to overcome the problem of athlete boredom caused by conventional, monotonous training methods. The lack of variation in training sessions has been shown to negatively impact the mastery of basic techniques and athlete motivation during training. Through a varied model approach, athletes are encouraged to improve their passing accuracy, a crucial element in developing attacking strategies and strengthening teamwork on the field. Mastery of good passing techniques, especially using the inside of the foot, is a vital tool for creating effective game collectivity. Although this model has been proven effective in improving athletes' motor skills, there is room for further development, especially by increasing the number of training variations to achieve more maximal results. The implementation of this model is expected to serve as a reference for coaches in creating a more dynamic and measurable training environment.

The development of this paired-passing training model is supported by numerous scientific studies that emphasize the importance of technical, tactical, and psychological aspects in soccer. Substantially, the research conducted by Chan et al. (2016) underscores that soccer performance is an integration of technical and tactical areas that are interrelated. In this context, mastery of basic techniques such as passing and control becomes a vital instrument for creating goal-scoring opportunities and maintaining game rhythm. This aligns with the view of Fajrin et al. (2021), who state that basic technique is the main capital for players to achieve effective game mastery on the field.

The urgency of variation in training models is also reinforced by the findings of Bozkurt & Kucuk (Sibarani & Manurung, 2021), which indicate that coaches must create diversity in training sessions to eliminate athlete boredom, especially in long-term training. Lack of variation has been shown to correlate negatively with players' ability to master basic passing techniques. Therefore, the application of varied training methods as developed in this study becomes a strategic solution to maintain motivation levels while increasing athlete passing accuracy. Besides boredom, physical fatigue is also an important consideration in the supporting literature. Mulazimoglu (2016) found that excessive physical fatigue can lead to a drastic decrease in players' passing accuracy. Thus, a systematic, measurable training model is needed to improve accuracy as a complex psychomotor quality. Further support comes from Siagian (2021), who emphasizes that accurate passing is the foundation for building attacks and developing team collective play. By integrating these expert views, the paired training model developed in this study has a strong theoretical basis and can be considered an innovative and effective training reference for junior athletes.

CONCLUSION

From the results of the development of the paired passing training model to improve passing skills in Planet Soccer School Palembang athletes, it is concluded that the product developed is already feasible and appropriate for soccer athletes. This is based on the assessment and revision from soccer learning experts and practitioner coaches. Overall, the developed product was categorized as feasible and appropriate for use in soccer training. The paired passing training model demonstrated satisfactory validity, achieving a validity score of 84% in the small-scale trial and 95.2% in the large-scale trial, with no revisions required at either stage. Based on these findings, coaches and soccer practitioners are encouraged to implement the paired passing training model as an alternative training approach to enhance athletes' passing skills. Furthermore, future studies should investigate the long-term effectiveness of the model, involve larger and more diverse participant groups, and develop additional training variations to further improve technical performance in soccer.

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