



Development of basic soccer technique training models for children aged 7-9 years

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Abstract

The purpose of this research is to invent useful football training models for children 10-12 years old in school football (SSB). This development research is carried out by adapting 10 steps of development research from Borg & Gall (1983: 775) and makes it into 6 steps as follows: (1) Collecting information in the field and analyzing the collected information, (2) developing the early product (draft model), (3) expert validation and revision, (4) small scale field trial, (5) big scale field trial and revision, and (6) final product making. The small-scale trial was carried out towards 15 SSB trainees 10-12 years old at SSB Tunas Wijaya Yogyakarta. A large-scale trial was carried out by 30 SSB trainees 10-12 years old at SSB Bantara. The data collecting instruments used are: (1) interview guide, (2) value scale, (3) observation guide model, (4) observation guide effectiveness model, and (5) questionnaires for students. The data analysis technique that was used is quantitative descriptive and qualitative descriptive. The result of this research is a football training model for children 10-12 years old in school football (SSB) which consists of four training models, they are: (1) passing ball training, (2) ball control training, (3) ball feeling training, and (4) coordination training.

Keywords: football training, children 7- 9 years old, football school

Introduction

Development is a process, a method, an act of developing, an act of increasing, changing perfectly. This is in accordance with what was stated by (Sugiyono, 2018) ^[13] development is a process or way of making something advanced, perfect and useful. Development activities include the following stages: planning, implementation, and evaluation followed by improvement activities so that a form that is considered adequate is obtained. Development is a systematic, integrated and planned approach to increase organizational effectiveness and solve problems (such as lack of cooperation/co-operation, excessive decentralization and lack of speed of communication etc.) which impede operating efficiency at all levels (Teramoto & Golding, 2013) ^[15]. A model can be interpreted as a miniature object that is designed to facilitate the process of visualizing objects that cannot be observed so that they can be understood systematically. According to Zayed *et al* (2018) ^[19] as a conceptual framework that is used as a guide in carrying out activities. A model can be understood as: (1) a type or design, (2) a description or analogy, (3) a system of assumptions, data used to systematically describe an object or event, (4) a design that a simplified version of a working system, a simplified translation of reality, (5) a description of a possible or imaginary system, (6) a reduced presentation in order to explain and show its true nature. Based on statement Blumenstein & Orbach (2020) ^[4] *someone demonstrates the way others should act or think to be a model by example*. Models can function as examples in demonstrating to others about other ways to act or think. Based on the opinion above, it can be concluded that model development is a process or way of making an object or type more advanced, better, perfect, and useful. In general, the training model can be interpreted as a pattern or form of training in which there are training steps that are in accordance with the training objectives to be achieved (Garber *et al.*, 2019) ^[6].

The training model is generally the same as the learning model, because the principles of learning and practice are the same, namely to change for the better. Training or learning can be carried out in theory (indoors) or practically (outdoors). However, in general the training is carried out practically. This is in accordance with what was stated by Bloch (2019) ^[3] who argue that "*Learning as being a relatively permanent change in performance resulting from practice or past experience*". Learning or practice is a relatively permanent change in performance resulting from past practice or experience.

Craig Wilderman *et al* (2020) ^[18] learning is a process of individual change as a result of experience or training through repetitive activities. Based on the above discussion regarding the training model will be adopted from the learning model. Before determining the training model or learning model that will be used in practicing or studying, there are several things that must be considered by the coach or teacher. This is in accordance with what was stated by (Weterings *et al* (2021) ^[17] before determining the learning model to be used in learning activities. There are several things that the teacher must consider in choosing it, namely: (a) consideration of the goals to be achieved, (b) considerations related to learning materials or materials, (c) considerations from the point of view of students, and (d) other considerations that nontechnical. Specifically in the field of motor learning, Samsudin (2008, p.13) suggests that motor learning models are learning steps by paying attention to the characteristics of the child, the competencies to be achieved, interactions in the learning process, tools/media, and assessment. The definition of the model above can be concluded that the model is a miniature aspect of life. The model is prepared based on the results of observations on the implementation of science in everyday life. The preparation of the model is intended to facilitate the transfer of knowledge and life values so that they can be understood and easily applied. Some things that must be considered by

the trainer or teacher before determining the training model or training model to be used in practicing include (1) consideration of the goals to be achieved, (2) considerations related to training materials or materials, (3) considerations from the student's point of view, and (4) other non-technical considerations (Amansyah, 2019)^[1].

The preparation of the model in this research and development seeks to fulfill the characteristics of the learning model written by Sukadiyanto & Muluk (2021)^[14] as follows: (1) based on the learning theory of certain experts; (2) has a specific educational mission or goal; (3) can be used as a guideline for improving teaching and learning activities in class; (4) has model parts, namely syntax (sequence of learning steps), there are reaction principles, social systems, and support systems; (5) has an impact as a result of applying the learning model. These impacts include learning impacts, namely learning outcomes that can be measured, and accompanying impacts, namely long-term learning outcomes; and (6) make teaching preparation (instructional design) with the guidelines of the chosen learning model.

Based on this opinion, it is concluded that the training model in this study is a training design that is arranged in such a systematic way in organizing learning experiences to achieve the expected competency/training goals. Training is a systematic training process that is carried out repeatedly, and the number of training loads is increasing day by day (Udia & O, 2017)^[16]. Meanwhile, according to Blumenstein & Orbach (2020)^[4] training is a process of systematically preparing the athlete's organism to achieve maximum quality performance by being given regular, directed, increased, and repeated physical and mental loads. Based on this opinion, it can be interpreted that training is a systematic process to improve one's abilities by giving training loads repeatedly. Systematic means that the training is carried out regularly, planned, according to a schedule, according to a certain pattern and system, methodically, continuously from the simple to the more complex. An exercise that does not fulfill any of these is not a systematic exercise. While repetition can be interpreted that the movements learned must be trained repeatedly so that movements that were previously difficult to do and coordination of movements that are still stiff become easier, automatic, and reflexive in their implementation. Besides that, it can refine the coordination of movements so that it saves more energy (efficient).

According to Sukadiyanto & Muluk (2021)^[14] training is a process of improving the ability to exercise which contains theoretical and practical material, using methods and rules, so that goals can be achieved on time which has the following characteristics: (1) a process to achieve a better level of ability in exercising, which requires a certain amount of time (phasing), and requires precise and careful planning; (2) the training process must be regular and progressive. Regular means that the exercise must be carried out in a steady, advanced, and sustainable manner. Meanwhile, it is progressive, meaning that the training material is given from easy to difficult, from simple to more difficult (complex), from light to heavy; (3) every face-to-face meeting (one session/one training unit) must have goals and objectives; (4) training material must contain theoretical and practical material, so that the understanding and mastery of skills becomes relatively permanent; and (5) using certain methods, which are the most effective ways that are planned

in stages by taking into account the factors of difficulty, movement complexity, and emphasis on training goals. Bompa & Carlo (2019)^[5] explains that training objectives include (1) multilateral physical development, where athletes need overall physical development in the form of *fitness* as a basis for developing other aspects needed to support achievement; (2) special physical development for sports, where each athlete requires special physical preparation according to the sport; (3) technical skills, in which an athlete's biomotor abilities are developed based on the technical needs of certain sports to improve movement efficiency; (4) tactical ability, where the strategy to win the match is part of the training objectives by considering the opponent's abilities, strengths and weaknesses of the opponent, as well as environmental conditions; (5) psychological factors, where psychological factors are used to increase discipline, enthusiasm, fighting power, self-confidence, and courage; (6) maintaining health, where health is a provision that needs to be owned by an athlete, so it needs regular examinations and treatment in maintaining it; (7) injury prevention, is something that athletes are very afraid of, so prevention efforts are needed by increasing joint flexibility, flexibility and muscle strength; and (8) theoretical knowledge, where training must improve the athlete's knowledge of the physiological and psychological basis of training, planning, nutrition, and regeneration. According to Prima & Kartiko (2021)^[10] the objectives of the exercise include achieving and expanding overall physical development and growth for children of developmental age, increasing personal character such as discipline, enthusiasm, being serious, developing self-confidence, tolerance with friends, train a sense of social and teamwork when viewed from the essence of education, and strengthen joints and ligaments so athletes avoid injury. An athlete with good coordination is not only able to perform a skill perfectly, but also easily and quickly in performing skills that are new to him. Good coordination can change and move quickly from one movement pattern to another so that the movement becomes effective. According to Bompa in Sukadiyanto & Muluk (2021)^[14] basically coordination is divided into two types, namely general coordination and special coordination. General coordination is the ability of the whole body to adjust and regulate movements simultaneously when carrying out a movement. Special coordination is coordination between several limbs, namely the ability to coordinate the movements of a number of limbs simultaneously.

Methodology

The type of research used in this study is research and development or development research. This development research was carried out to obtain a training model for basic football techniques of passing, control, ball feeling and coordination for children aged 7-9 years. The research with the development model was chosen, because the development research carried out was product oriented, so the resulting product was expected to be suitable for children aged 7-9 years in basic soccer technique training with the passing, control, ball feeling and coordination training models.

The ten steps in the research and development research procedure, according to research and development research steps are (1) potential and problems, (2) data collection, (3) product design, (4) design validation, (5) design revision, (

6) product trials, (7) product revisions, (8) usage trials, (9) product revisions, and (10) mass production. usage, (9) product revision, and (10) mass production.

The types of data obtained in this research and development are qualitative data and quantitative data. Qualitative data comes from: (a) results of interviews with subject matter experts, experts or football coaches, (b) data on deficiencies in the *passing, control, ball feeling, coordination training models* from subject matter experts and soccer trainers who are trialling, and (c) input data material experts and football trainers conducting trials on the *passing, control, ball feeling* and *coordination training models*. Quantitative data were obtained from: (a) the material expert's assessment of the *passing, control, ball feeling* and *coordination exercises* and (b) the material expert's assessment of the effectiveness of the passing, control, ball feeling and coordination exercises.

The third data collection technique used is the indirect observation technique with an observation instrument in the form of a checklist using a Likert scale and DVD recordings of the implementation of the basic soccer technique training model for children aged 7-9 years in field trials both small scale / large scale. The indirect observation technique is a way of collecting data that is done through observing and recording the symptoms that appear on the research object which is carried out after the event or situation or condition occurs.

In measurement, there is often a tendency for respondents to choose answers in category 3 (three) for the Likert scale. To overcome this, the Likert scale only uses 4 (four) choices, so that the attitude of the respondents is clear. The observation instrument used in this study used a Likert scale with 4 possible answer categories, namely: strongly agree (score 4), agree (score 3), disagree (score 2), and strongly disagree (score 1).

Results

Needs analysis is a way to analyze the main problem through direct observation in the field. In the research on developing a football training model for children aged 7-9 years at the SSB football school, a needs analysis was carried out by observing the SSB. Observations were carried out using several methods such as interviewing trainers and seeing first-hand the training methods taught to SSB students.

Based on the observations made, some information was obtained, including SSB students aged 7-9 years who felt bored with the type of exercise being carried out. The lack of a soccer training model. Based on the existing problems, a basic soccer technique training model will be developed for children aged 7-9 years. Training model data with ball passing and ball control exercises.

Table 1: Observation data on the effectiveness of large-scale trials of soccer training models for children aged 7-9 years of exercise using cones, ball passing, ball control.

Material Expert	Item Score										Total value
	1	2	3	4	5	6	7	8	9	10	
Expert 1	4	4	4	4	4	4	4	4	4	4	40
Expert 2	4	4	4	4	4	4	4	4	4	4	40
Expert 3	4	4	4	4	4	4	3	4	4	4	40
SSB Trainer 1	4	4	4	4	4	4	4	4	4	4	40
SSB Trainer 2	4	4	4	4	4	4	4	4	4	4	40

Based on the results of the observation assessment table of the effectiveness of the soccer training model for children aged 7-9 years, training using *cones, ball passing, ball control* is included in the norm category. The following is the presentation of category norms in table 2.

Table 2: Frequency distribution

intervals	Category	Frequency	Percentage
$X < 25$	Not enough	0	0.00%
$25 \leq X < 35$	Enough	0	0.00%
$35 \leq X$	Effective	5	100%
Amount		5	100%

Table 5 shows the material expert's observational assessment of the soccer training model for children aged 7-9 years training using cones, ball passing, ball control, no subjects (0%) considered it less good/effective, no subjects (0%) who considered it quite good/effective, and 5 respondents (100.00%) considered it good/effective. The total scores of the experts all lie in the interval $35 \leq X$, so the views of the material experts on the results of observations of soccer training models for children aged 7-9 years using cones, ball passing, ball control for SSB students aged 7-9 years look good /effective.

Table 3: Data from Observation Results of a Large-Scale Trial Model of Soccer Training for Children Aged 7-9 Years on *Ball Control Exercises* with Outer Legs, Inner Legs, Thigh Legs

Material Expert	Item Score										Total value
	1	2	3	4	5	6	7	8	9	10	
Expert 1	4	4	4	4	4	4	4	4	4	4	40
Expert 2	4	4	4	4	4	4	4	4	4	4	40
Expert 3	4	4	3	4	4	4	3	4	4	4	39
SSB Trainer 1	4	4	3	4	4	4	4	4	4	4	39
SSB Trainer 2	4	4	4	4	4	4	4	4	4	4	40

Based on the results of the observation assessment table of the *ball control soccer training model* with the outside of the foot, the inside of the leg, the thighs are included in the category norm. The following is the presentation of category norms in table 4.

Table 4: Frequency distribution

intervals	Category	Frequency	Percentage
$X < 25$	Not enough	0	0.00%
$25 \leq X < 33$	Enough	0	0.00%
$33 \leq X$	Effective	5	100%
Amount		5	100%

Table 4 shows the assessment of the material expert's observation of the soccer training model for children aged 7-9 years, exercise on *ball control* with the outside of the foot, the inside of the leg, the inner leg of the thigh, no subject (0%) looked less, no subject (0%) considered it sufficient, and 5 respondents (100.00%) considered it good. The total scores of the experts all lie in the interval $35 \leq X$, so the views of the material experts on the results of observations of the soccer training model for children aged 7-9 years exercise on *ball control* with the outside of the leg, the inside of the leg, the thigh of the upper leg for SSB students aged 7-9 years is good.

Table 5: Observation Data on the Effectiveness of a Large-Scale Trial Model of Soccer Training for Children Aged 7-9 Years in *Ball Control Exercises* with the Outer Legs, Inner Legs, and Thighs.

Material Expert	Item Score										Total value
	1	2	3	4	5	6	7	8	9	10	
Expert 1	4	4	4	4	3	4	4	4	4	4	39
Expert 2	4	4	4	4	4	4	4	4	4	4	40
Expert 3	4	4	3	4	4	4	3	4	4	4	39
SSB Trainer 1	4	4	4	4	4	4	4	4	4	4	40
SSB Trainer 2	4	4	3	4	4	4	4	4	4	4	39
intervals	Category		Frequency			Percentage					
$X < 25$	Not enough		0			0.00%					
$25 \leq X < 33$	Enough		0			0.00%					
$33 \leq X$	Effective		5			100%					
Amount			5			100%					

Based on the results of the observation assessment table of the effectiveness of the soccer training model for children aged 7-9 years, ball control exercises with the outside of the foot, the inside of the leg, and the thighs are included in the norm category. Exercise on *ball control* with the outside of the foot, the inside of the leg, the inner leg of the thigh, no subjects (0%) considered it less good/effective, no there is a subject (0%) who thinks it is quite good/effective, and 5 respondents (100.00%) think it is good/effective. The total scores of the experts all lie in the interval $35 \leq X$, so the views of the material experts on the results of observations of the soccer training model for children aged 7-9 years exercise on *ball control* with the outside of the leg, the inside of the leg, the thigh of the upper leg for SSB students aged 7-9 years looking good/effective.

Discussion

Research designed to produce a soccer training model for children aged 7-9 year at SSB football school Is a stage that must be passed by young athletes before moving on to the next stage of training. This stage must be passed by athletes before entering the specialization of the sport that will be occupied. Exercises carried out at this stage must be multilateral in principle so that athletes can identify their talents from a young age (Koger, 2019) [9]. The very important thing in this stage is to prepare a good foundation for young athletes related to physical, mechanical, psychological and moral aspects as preconditions for achieving good results through the development of abilities, skills and character (Guntoro *et al.*, 2020) [8]. The goals to be achieved in this stage are the development of conditioning and coordination, the development of the basic movement patterns of the sport to be occupied, the readiness to practice and the formation of personality, inculcating the experience of practicing and competing with a good attitude, and discovering the talents of athletes and developing them (Ghozali *et al.*, 2017) [7].

The advanced training stage becomes a connecting stage that connects the basic training stage with the high achievement stage (Ariestika, Elsa, & Amni, 2022) [2]. The thing that needs to be considered in this stage is to strengthen the foundation of skills, quality, and physical abilities and carry out more specific training (specialization) in the sport that will be practice (Rodriquez *et al.*, 2020) [11]. This stage begins at the age of 14 in certain sports. The goal that must be achieved in this training stage is to strengthen the will power to practice and face various psychological

and physical obstacles, develop harmonization of physical conditions with coordination (such as strength, speed, endurance, agility and mobility) to lead to sports specialization by a strong physical foundation leading to high achievements later, and the development of technical and tactical exercises by conducting more frequent practice trials and matches (Satrio & Winarno, 2019) [12]. So as to produce achievement with the stage of the whole exercise. The goal in the high achievement stage is to prepare athletes for participating in national and international championships. The goal at this stage is high achievement. Each exercise has four indicators, namely physical, technical, tactical, and mental. Harmonization of the four indicators will be able to contribute to achievement (Amansyah, 2019) [1]. These four indicators can be implemented with different indicators and characteristics, depending on the needs of the sport involved. The training model developed is feasible to use.

Conclusion

From the results of the assessment of material experts, trainers as practitioners in the field and student questionnaires on the soccer training model for children aged 7-9 years at the SSB football school that was developed it can be concluded that: Model of soccer training for children aged 7-9 year at SSB football school is considered good and effective. The soccer training model for children aged 7-9 years as follows: The product of this development research is a soccer training model for children aged 7-9 year in football school which contains 5 training modes, namely: (a) Ball Passing Exercise, (b) Ball Controll Exercise, (c) Ball Feeling Exercise, (d) Ball Dribbling Exercise, (e) Coordination Exercise. The response of the SSB students who were sampled in this study, namely students were able to do the exercise model taught and wanted to do it again during the next practice, so that in general students gave a positive response to the soccer training model for children aged 10-12 years at SSB soccer school. Model soccer practice for children aged 7-9 years in the developed SSB football school is worthy of use. Product model soccer practice for children aged 7-9 years in the developed SSB football school is worthy of use. Product model of basic football technique training for children aged 7-9 years so that it can enrich experience and improve students' abilities in playing football and have good basic football techniques.

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