

Development of the mon busquets pass, an audio-based football passing instruments for kids aged 10 to 12

Suhermon^{1*}, Ferri Hendryanto¹, Rizki Wijaya Putra¹, Adi Satriadi¹

¹Health and Recreation Physical Education Study Program, Faculty of Education, Universitas Rokania, INDONESIA.


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ABSTRACT

Problems: The lack of an updated football passing measurement tool is the issue with this study. **Purpose:** Developing an audio-based football passing assessment tool for kids aged 10 to 12 is the goal of this project. **Method:** Research and development (R&D) is the methodology used in this study. Thirty School Football (SSB) players made up the population and sample in this study. On June 13, 2024, one material expert and one media expert were given questionnaires as part of the research. Two tests for the instrument's reliability will be passed on July 5, 2024, and July 7, 2024. The Criteria Test uses the results of the football passing comparison test carried out on July 6 2024 to determine the validity of the test. Data collection methods using questionnaires and tests. **Results:** The research results were obtained from 93% material experts and 87% media experts. Validity 0.91 and reliability 0.89, indicating validity and reliability based on Kirkendall's categories. **Conclusion:** Apart from that, it is also hoped that this Regular Beginner Lecturer Research (PDP) activity can meet the Main Performance Indicators / IKU 2 (Students Gain Experience Outside Campus) and IKU 3 (Lecturers Have Activities Outside Campus). Coaches and athletes feel happy and enthusiastic about the existence of this football passing instrument and this instrument can be disseminated widely as a measuring tool to see football passing ability. There are advantages to this product, including requiring equipment that is easy to obtain and a weakness in this product, namely that there is no automatic technology that gives the ball to the testee who will carry out the test.

Keywords: development, instrument, passing, football, audio

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Corresponding Author:

Suhermon

Health and Recreation Physical Education Study Program, Faculty of Education, Universitas Rokania, INDONESIA.

Email: suhermon97@gmail.com

Introduction

Sport is a physical activity that can make a person's body physically and spiritually healthy which will ultimately form a quality human being. For performance sports, there are internal and external factors so that an athlete's performance can be maximized. Internal factors relate to physical, technical, tactical and mental factors. Meanwhile, external factors are facilities and infrastructure, nutrition, parental support, motivation and others (Suhermon, 2023). Doing exercise can make the body healthy if it complies with existing rules. Apart from that, sport can also make an individual calm and feel better spiritually (Suhermon, Arisman, Ferri Hendryanto, Siska, Tofikin, 2023). Table tennis is a very fast ball game, so to practice and compete in table tennis, we should know the things that the sport of table tennis has and the factors that determine its success. Sport is one of the movement activities that humans always do, such as walking, running, jumping and throwing (Almanar et al., 2018). The current development of sports in Indonesia is very rapid, moreover the Ministry of Youth and Sports has prepared a method to prepare advanced sports in Indonesia, namely making a grand design for national sports which has been drawn up directly by the Minister of Youth and Sports, this grand design was created in order to The short term target is to prepare Indonesia for the 2032 Olympics, which Indonesia itself is a candidate to host the Olympics itself, which was conveyed by the Ministry of Youth and Sports on March 24 2021, in addition to that, sport is a necessity in life that is periodic. (Khairi et al., 2022). Sports activities are not only in urban areas, but have been carried out by the wider community. The public is increasingly aware and understands the importance of sports activities, whether for recreation, health purposes, or sports carried out for the purpose of improving performance (Anggara, 2021). With sport, a person can achieve

achievements and improve their physical and spiritual fitness. Sports itself consists of various sports including team and individual sports.

In fact, the more advanced the development of the world, the more advanced the technological development will be. Because human life really needs technology. In the current era of globalization, almost all fields have experienced technological progress, starting from science, economics and even sports. Talking about sports, sports is a field that is very popular with all groups, from children to the elderly. Apart from being a means of physical fitness, sport is also a means of supporting an athlete's achievements. To improve performance, of course an athlete needs tools to support them in exercising. So this is where technology plays a role for a sportsman (Salam et al., 2021). In the era of modern industrial technology, sport plays a very important role in balancing or harmonizing human life with the various values contained therein. With advances in technology, sport is increasingly taking on a role, especially in the health sector. Various health problems that arise in society as a result of reduced physical activity due to spending too long playing with gadgets, especially among young people, can be prevented with sports activities. Sports activities are full of values such as responsibility, sportsmanship, discipline, ethics, morals, respect for others and friendship. (Yoda, 2020)

Football is a sport that is very popular with most people and even gets sympathy from the people of Indonesia and the world. In the game of football, good cooperation is needed to create the key to success on the field. Apart from that, soccer players must also master the basic techniques of playing soccer. Soccer is a sport that is played or competed between two teams in opposite directions, each of whom struggles to put the ball into the opponent's goal (Nusufi, 2016). Football is also loved by all levels of society, from regional, national, international, children, adults, to the elderly, with the aim of the game of football being to put the ball into the opponent's goal. The aim of each team is to score a goal against the opponent's goal and protect their own goal so that the ball does not get hit (Anam & Suharjana, 2015).

In this football game there are several techniques that players must master, including dribbling, passing, shooting, heading and throw-in techniques, but the author only examines the passing techniques in more depth. Passing in football is the most basic technique compared to other techniques to learn in the sport of football. This passing technique is very important, because the essence of football is to pass the ball to teammates. Passing consists of passing using the inside of the foot, the outside of the foot and the back of the foot. (Alfi Hidayat, 2019). Passing has the function of placing the ball in any direction according to wishes based on the team's strategy. Players can control the course of the match if they have good passing techniques so that the ball is not controlled by the opponent. Passing is a movement of the ball from a starting point to the point it wants to go to so that the ball experiences movement (Simanjorang et al., 2021).

Especially in the sport of soccer, basic techniques are an obligation that must be mastered well, because in big soccer games or soccer, it is necessary not to take too long when carrying the ball, and it also requires fast play, strong back line defense, and attacks on the ball. conceptualized opponent's goal (Arrosyid et al., 2023). In the game of football, fast player movements also cause players to have to make precise passes. It is not surprising that when playing, passing has an important function to get past opponents or dismantle the opponent's defense. Passing is one of the technical elements that must be learned in the game of football (Pradana, Alvido Brilliant, 2023). To produce a good pass, good leg muscle strength is also needed, so that when passing, the pass ball reaches it really accurately. Passing must be done with certain strength and accuracy, so that the goal is achieved (Wicaksana & Rachman, 2018). Passing the ball can be done in various ways with the ball stationary, flying and in motion. Passing is one of the most important basic techniques. An athlete who cannot pass will not be able to play football. This means that passing football is an attempt to move the ball from one area to another (Irfan et al., 2020). The training carried out is of course not only passing techniques but also other football techniques, as well as tactical training and physical training. When practicing football passing, there must be variety when practicing, the aim is that the students/athletes who take part in the training do not get bored with the exercises that will be carried out (Mahardika & Parlindungan, 2021).

A good training program will result in a successful process and effective quality training (Apriyanto & S, 2022). In football, various aspects and techniques are needed so that a match can be won in order to achieve better performance in the future. How to train basic techniques must be truly mastered because basic techniques are the initial capital for a player to develop talent in the sport he is interested in. (Julianena & Abdul, 2018). Football coaching at elementary school age is very important to learn the correct basic football techniques and to develop a person's potential (Bambang Triaji Asnoto et al., 2020).

This condition was when the author made observations and interviewed the coach of SSB Babussalam, that the problem that occurred when athletes competed was that their passing ability was less efficient and effective and the coach did not have a passing measuring tool that was used to see the extent

of each athlete's passing ability. Therefore, a solution is needed on how to create a passing instrument in football based on audio technology. Apart from that, the problem formulation in this research is (1) whether the test instrument is valid, (2) whether the test instrument is reliable.

Method

This research uses the Research and Development (R&D) method. The research and development method is a research method used to produce certain products and test their effectiveness (Purnama, 2016)

The population in this study was SSB Babussalam football players, totaling 30 people. The sample for this retest was 30 people for the first passing test and the second passing test. The technique for determining the test sample in this research is to use the saturated sample method.

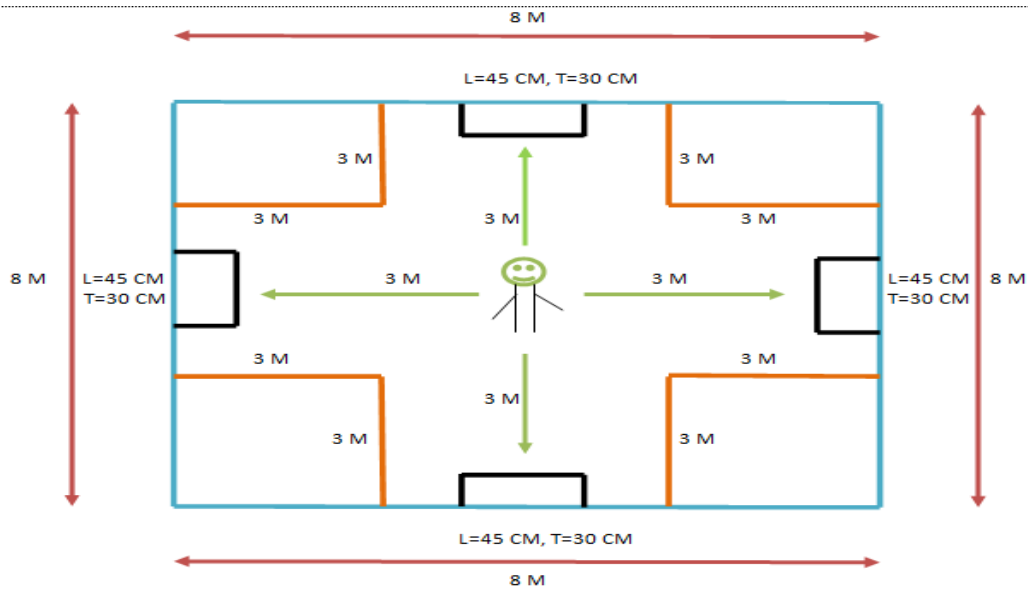


Figure 1. Development of the Mon Busquets Pass, an Audio-Based Football Passing Instruments For Kids Aged 10 to 12

Test Name : Mon Busquets Pass

Goals : Measuring passing ability in 10-12 year olds

Tools Used:

1. Mini goal measuring 45 cm x 30 cm
2. 15 footballs
3. The football field measures 8 meters x 8 meters
4. Cones 16 pieces
5. Meter
6. Whistle
7. Stopwatch
8. Laptop that has been programmed for passing tests
9. Speaker for football passing test.

Implementation: The testee passes 15 balls into the goal that has been provided alternately based on the sound that comes out of the speaker through the application randomly. Apart from that, the testee must pass to a different goal each pass for 60 seconds. If there is still time in 60 seconds and the ball has been kicked 15 times then continue until time runs out.

Scoring: Each testee gets 1 point if the ball passed into the goal.

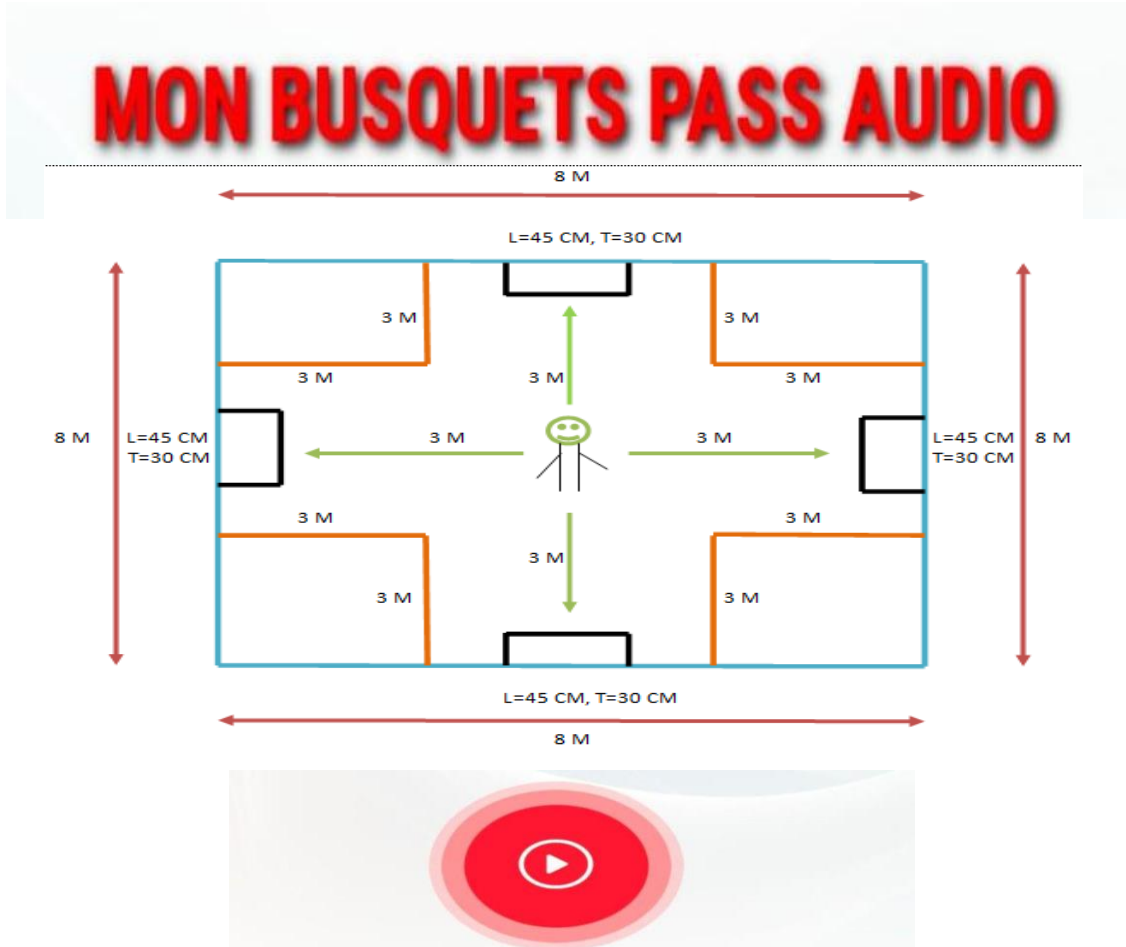


Figure 2. Application Development of the Mon Busquets Pass, an Audio-Based Football Passing Instruments for Kids Aged 10 to 12

Data collection techniques in this research used questionnaires and measurement tests. A questionnaire was given to material experts and media experts to validate whether the content of this 10–12-year-old football passing instrument was appropriate or not. Meanwhile, the test was carried out to collect data to determine whether the passing test instrument in football was valid and reliable. To obtain test reliability by correlating the results of the first passing test with the results of the second passing test, and to find the validity of this instrument by correlating the results of the first passing test with the results of the football passing test (Nurhasan).

Result

1. Expert Validation

In validation with material experts, the percentage obtained was 93% of the maximum score. It can be stated that according to material experts, the content validation of football passing instruments has received the "Very Eligible" category.

In validation with media experts, the percentage obtained was 87% of the maximum score. It can be stated that according to media experts, the football passing instrument with content validation has received the "Appropriate" category.

Table 1. Validator Value

No	Expert Validation	Value	Category
1	Material Expert	0,93	Very Worth It
2	Media Expert	0,87	Worthy

2. Validity and Reliability of the Football Passing Instrument

Test validation in this research was carried out by correlating the first passing test with the criterion test. Based on the data obtained, the validity of this passing instrument is 0.91. So this passing instrument in football is declared valid based on the Kirkendall validity coefficient interval which states 0.91, which is included in the "Very High" category. The reliability of the test in this research was carried out by correlating the results of the first passing test and the results of the second passing test. Based on the data results above, the reliability of this test is 0.89. So this passing instrument in football is reliable based on the Kirkendall coefficient interval of 0.90, which is included in the "High" category.

Table 2. Test Result

No	Expert Validation	Value	Category
1	Validity	0,91	Very Hight
2	Reliability	0,89	Hight

3. Norm Tes Development of the Mon Busquets Pass, an Audio-Based Football Passing Instruments For Kids Aged 10 to 12

Table 3. Football Passing Test Norms

Value	Category
≥ 11	Very Good
8-10	Good
5-7	Currently
2-4	Not Enough
≤ 1	Very Less

Discussion

The development of the Mon Busquets Pass instrument based on audio technology is an innovation that has great potential in early childhood football development. By providing instant and personalized feedback, this instrument can help young players develop better passing skills effectively. Widespread implementation and further research is needed to ensure this instrument can have a positive and sustainable impact on football coaching in the 10-12 year age group. The results of using the Mon Busquets Pass instrument which is based on audio technology are expected to show a significant improvement in the passing ability of young players. With instant audio feedback, players can immediately correct mistakes and improve their technique in less time than with traditional methods. Audio technology also has the potential to increase player engagement and motivation, as it provides a more dynamic and engaging training experience. Coaches can also utilize this instrument to more efficiently identify areas that need improvement, allowing for more focused and effective training.

Developing basic techniques in football, especially passing, is very important at an early age, especially in the 10–12-year age group. At this stage, young players are in a critical phase of motor skill development and basic tactical understanding. One of the crucial techniques to master is passing, which is the basis of team play and supports the smooth running of the game. Mon Busquets Pass is an instrument specifically designed to develop passing abilities in young players. The name "Mon Busquets" is taken from the researcher's name "Mon" and the name of a Spanish footballer who is also a Barcelona player, namely Sergio Busquets, with his skills in accurate and effective passing. By integrating audio technology, this method aims to provide instant feedback and reinforce exercises interactively.

Initially, the development of this table football passing instrument was designed and produced as a measuring instrument for football passing for 10–12-year-olds based on audio technology. The development process goes through research and development procedures. Through several planning, production and evaluation. This instrument was prepared by various parties who supported the

development of this football passing instrument. This initial instrument received a lot of suggestions from coaches, material experts and media experts. After this instrument has been validated by experts, a test-retest is carried out to find the reliability of this test and for its validity, namely by correlating the results of the first test with the results of the criterion test.

The validation process of material experts and media experts produces data that can be used as content validity of this football passing instrument. Meanwhile, empirical validity is the validity obtained from the first passing test with the criterion test. The quality of "Development of a 10–12-Year-Old Football Passing Instrument (Mon Busquest Pass) Based on Audio Technology" in terms of content validity is included in the "Very Eligible" category. Coaches and athletes feel happy and enthusiastic about the existence of this football passing instrument and this instrument can be disseminated widely as a measuring tool to see football passing ability. There are advantages to this product, including requiring equipment that is easy to obtain and a weakness in this product, namely that there is no automatic technology that gives the ball to the testee who will carry out the test. From these weaknesses, we hope to get attention and further development efforts to obtain better product results.

Sports achievements will be achieved if there are sports coaching activities in it, because whether a sport develops or not depends on the sport coaching itself. Training for children needs to look at growth and development and overall movement development. The long-term training program is a reference for determining achievement targets and exercises in the following time units. Efforts to increase sports performance need to continue to carry out the development of athletes themselves, perhaps through talent search and monitoring, breeding, education and training for sports achievements based on science and technology more effectively as well as improving the quality of sports organizations at the central level. or n regions (Jihad & Annas, 2021). Sport is part of the achievements of a nation that grows and develops in accordance with developments in science and technology (Putra, 2016). Therefore, sport has an important role as a medium to bridge human development as a whole. Sport is all systematic activities to encourage, develop and develop physical, spiritual and mental potential (Ninglan et al., 2020). Each player position in a team has its own function and purpose. To be able to carry out good teamwork, each player must have good skills in mastering the techniques of playing football, so that each player must be equipped with several elements, namely physical, technical, tactical and mental elements. Becoming a skilled or professional football player is not easy. The process from previously not being able to become professional takes a long time and requires regular practice. To become a professional player, you must have excellent physical condition, master all the techniques in playing football and have a good mentality. Apart from that, you must also have high seriousness. In the game of football, there are several basic techniques that must be mastered (Muhammad Sidik et al., 2020).

Training in football is a process that is useful for training or improving mastery of basic technical skills for playing football, improving physical abilities and forming a good mentality. Lack of practice will be a big problem for players if they want to improve their abilities. When carrying out passing movements, the level of precision in passing to a friend is very high. In order to be able to send the ball carefully to a friend, you need to practice continuously and always pay attention to accuracy. Passes are often used by football teams who rely on the speed of their players to carry out attacks and defense. The basic passing technique is used for flat passes where the pass is relatively faster than other passes (Rustanto, 2017). In general, the implementation technique is to stand with your shoulders facing the target, place your supporting foot next to the ball, place your swinging leg sideways with your toes pointing upwards, then kick the ball right in the middle using the swinging side of your foot, then move the kick forward steadily. keep your feet in position.

Conclusion

The results of the research " Development of the Mon Busquets Pass, an Audio-Based Football Passing Instruments for Kids Aged 10 to 12" are categorized as valid and reliable as a measuring instrument for football passing aged 10-12 years. This can be seen from the research results which have a test validity of 0.91 and a test reliability of 0.89, that the football passing instrument for ages 10-12 is valid and reliable based on the Kirkendall coefficient. Meanwhile, in terms of content validity, for material experts it was 93% and media experts 87%, this shows that in terms of content, according to material and media experts, this test instrument is "feasible".

The development of the Mon Busquets Pass instrument based on audio technology is an innovation that has great potential in early childhood football development. By providing instant and personalized feedback, this instrument can help young players develop better passing skills effectively. Widespread implementation and further research are needed to ensure this instrument can have a positive and sustainable impact on football coaching in the 10–12-year age group. With the integration of

technology and modern training methods, this instrument has the potential to accelerate the development of basic football techniques at an early age, especially in terms of passing, and become a useful tool in long-term football development programs.

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