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DEVELOPMENT OF MEDIA BLOCK TRAINING VOLLEYBALL

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Abstract
This study aims to develop a volleyball block training tool media. Based on observations made in volleyball clubs throughout the city of Pontianak, there is no volleyball block training tool media, so it is necessary to develop a volleyball block training media. This development uses the R&B development model with the ADDIE development model. Meanwhile, the data analysis technique, namely the percentage, was adopted from Sudjana (2016). The results of the development of the volleyball block training tool media meet the criteria that are quite valid for media experts to get a score of 85.2% in the Very Eligible category, Material experts get a score of 89.6% meet the Very Eligible criteria, and the assessment for small group trials gets a score of 78.5 %, while the large group trial obtained a score of 80.1%. The conclusion of this study is that the development of volleyball block training media is very feasible to be used as a volleyball block technique training medium.

Keywords: *Development; Media; Block Training*

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INTRODUCTION

Knowing and recognizing something is not difficult. The difficult thing is to understand, to appreciate, as well as in the volleyball branch the principle is the same. To master the basic techniques of volleyball and how to play the ball, it is necessary to know in advance the basics and principles of the game. Volleyball games are characterized by cooperation, moving opportunities, high jumps to overcome the ball over the net such as smashes and blocks. The characteristics of twenty-first century volleyball players are not only a recreational sport, just a tool to improve physical fitness, but have demanded the highest quality of achievement and art. In a player's quest to achieve maximum achievement playing volleyball, the player's preparation is

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not only set on physical mastery and tactics, but the mastery of perfect basic techniques thanks to practice, is an important requirement for volleyball players. Given today's modern volleyball game, mastery of technique becomes something important that must be mastered perfectly for a volleyball player.

Volleyball games are fast and intermittent games, sometimes playing fast there are times when playing with high intensity where vertical jump ability is one of the abilities that must be possessed for a volleyball athlete (Hale et al., 2019) (de Freitas et al., 2014) (Gabbett &; Georgieff, 2006) (Mendes Id et al., 2021)(de Freitas et al., 2014)(Gabbett & Georgieff, 2006)(Mendes Id et al., 2021) , meaning that the time to play is very limited, so imperfect mastery of technique will allow for greater technical errors. The success or failure of an attacking and defensive pattern in a volleyball game can also be determined by the strategy used. Mastery of the basic aspects of the game of volleyball is one of the elements that determine the victory or defeat of a team in amatch in addition to elements of physical, tactical and mental conditions (Arisman & Noviarini, 2021). This cannot be separated from the game of volleyball which does not only rely on individual abilities. However, teamwork and cohesiveness in trying to execute the strategy used when defending is also very important, such as block techniques in volleyball games

Block is one of the basic techniques in volleyball games that is very influential to get scores and wins for a team in a match (Li et al., 2021). In addition, blocks are a technique in volleyball games where athletes try to narrow the angle of the spike and blocks are the first line of defense in the volleyball team to stem the opponent's attack so that it is not easy to reach the floor (Sujarwo, 2020) (Ackerman, 2014a) (Li et al., 2021).(Ackerman, 2014b)(Ackerman, 2014a)(Li et al., 2021) Blocking is one of the most significant contributions to winning or losing in the game of volleyball (Neves et al., 2011) (Eom and Schutz, 1992; Lenberg, 2004). According to (Sidhu, 2016) block is a method of defending against spike attacks where the defensive team jumps high above the front of the net and stops the

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trajectory of the ball over the net by touching the hands and arms. Successful defensive technique with blocks is an important part of a team's victory in a volleyball game. Block and defence abilities are important abilities that determine a condition of the position of obtaining value, so that it greatly affects the distance of the team in winning the match. The keys to successful defensive techniques with blocks are anticipation, decision making, movement speed and jumping ability (Exerc, 2007). While according to (Sidhu, 2016) said that the success of the block lies in the penetration and angle of the hand relative to the net plane to control the bounce of the ball. A block that succeeds when the ball bounces off the blocker's hand and goes straight back to the opponent's field or directs the ball to an empty part of the area in such a way that the blocker team can play the ball.

The defensive pattern with blocks is an attempt to defend in a passive state when receiving an attack in the hope that the opposing team will make a mistake and eventually be defeated. To block efficiently, players must use techniques that allow the shortest time to reach the target (ball contact), the longest lateral movement along the net and vertical jumps. The penetration and angle of the hand relative to the plane of the net is also decisive for forming an efficient surface over the net and for controlling the bounce of the ball. But the reality on the field is that there are many mistakes that are often made by players when anticipating attacks through block techniques. The contribution of block technique in each match is very low to the score. This was stated by (Apriyanto, 2020) based on the results of his research showing the low effectiveness of block techniques in the Proliga championship, the contribution of block techniques was only 0.27% to the score. Even though the block technique is ranked second after spike as the most score generator to win the game (Sidhu, 2016).

Based on the description of the problem stated above, it is necessary if an effort is to design the development of training tool media as a tool media to improve basic block technique skills. The development of block training media is considered

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very important to facilitate and accelerate the improvement of block technique capabilities both individually and in groups (Ihsan et al., 2022). The development of this block training media is the first development in Pontianak City, because the training media sources so far so far volleyball coaches in Pontianak City only use conventional methods in block technique training. For this reason, this study aims to develop a block training tool media as a training media activity that can be used in improving block technique skills in volleyball.

METHOD

This research uses the Reasearch and Development (R&D) approach method developed by Borg & Gall (1983) which includes 1) Initial research stage and information collection, 2) Planning stage, 3) Developing initial product format, 4) Initial field test, 5) Main product revision, 6) Main field test, 7) Operational product revision, 8) Operational field test, 9) Revision of the final product, and 10) Dissemination and implementation. This research and development aims to produce products in the form of media development of block training tools. Of the 10 steps of research and development from Borg and Gall, researchers cannot do all steps as a whole because of the limitations possessed by researchers. So the researcher simplifies the steps by using the ADDIE development model consisting of five stages which include; analysis, design, development, implementation and evaluation (Sugiono, 2014). The steps of ADDIE development research in this study if presented in chart form are as follows:

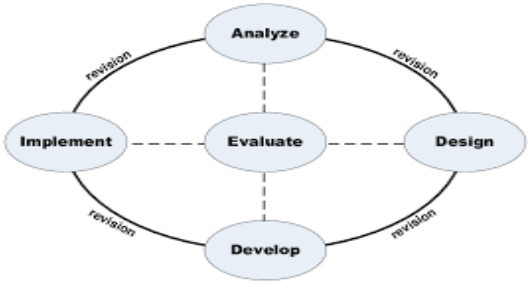

Figure 1. Volleyball Block Training Media Development Procedure

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The development of volleyball block training media is carried out through several stages as follows: (1) Conducting initial research, collecting data and information including literature review and field observation at the Pontianak volleyball club. (2) Develop initial product or initial product design. (3) Then conduct product trials on a small group scale with 20 volleyball athletes as research subjects with the aim of obtaining input and suggestions and assessing the product to be developed. (4) Revise the results of small-scale trials of one volleyball material expert and media expert and 1 volleyball coach. (5) Conduct large-scale product trials with a total of 40 athletes. (6) After large-scale trials are carried out, the product is revised and re-evaluated by one volleyball material expert and media expert and one volleyball coach. (7) The final product result is the development of volleyball block training equipment media. The data in this development research uses quantitative and qualitative data, where the data obtained is expressed by descriptive narrative sentences (Putra et al., 2020). While quantitative data is obtained from the results of scoring questionnaires. The data collection instrument used is a questionnaire where data in quantitative form is obtained from the results of data collection of small group trials and large group trials. The data analysis technique used is a feasibility test and media effectiveness of volleyball block training tools produced by means of assessment of volleyball material experts, media experts and volleyball coaches. To simplify the process of concluding data, the results of percentage analysis can be classified according to the percentage that has been obtained. According to Akbar &; Sriwiyana (2011) the percentage classification is as follows:

Table 1. Product Quality Criteria

Percentage Score	Category/Eligibility
75,01%-100,00%	Very Worth It
50,01%-75,00%	Pretty Decent
25,01%-50,00%	Not Worth It
00,00%-25,00%	Very Unworthy

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RESULTS AND DISCUSSION

The data presented in this discussion includes data from: 1) volleyball material expert validation, 2) learning media expert validation, 3) small group trials, 4) large group trials.

Table 2. Media Expert Assessment Results Data

No	Aspects Rated	Score That Retrieved	Score Maximum	Presentace (%)	Category
1	Physical	25	36	69,4	Pretty Decent
2	Design	12	16	75	Pretty Decent
3	Use	14	20	70	Pretty Decent
Total Score		51	72	70,8	Pretty Decent

From the data above, the results were obtained with a presentation of 70.8% with a fairly decent category. But because there are some additional content as suggested by media experts, therefore stating that it is worth testing with revisions according to suggestions.

Table 3. Material Expert Assessment Results Data

No	Aspects Rated	Score Maksimal	Presentace (%)	Category
1	Physical	23	28	71,4	Pretty Decent
2	Use	16	20	75	Pretty Decent
Total Score		39	48	72,9	Pretty Decent

From the data above, with a total score of 72.9%, which is included in the category of quite decent. However, for field trials, there needs to be improvements according to suggestions from media validation. So it is stated that field trials with revisions according to validation suggestions.

Product Revisions

Revisions are made based on the advice of expert validators. The development of volleyball block training equipment media in its development needs quality improvement in accordance with assessments, suggestions and additions from validators, referred to revisions to this development, namely:

Media Expert Revision

Marking on tilt posts and addition of key storage pockets. There are two columns

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before the revision and after the revision, the first row is the addition of pockets or containers for keys while in the second row the addition of lines for balancing marks between the poles.

Material Expert Revision

Revisions from material experts suggest that the bottom wear iron flats to make the load heavier. Suggestions and input from material experts are changing the frame media with flat iron, intended to increase frame strength and maintain balance, media blocks are made of lighter materials, this is done with material expert considerations regarding the upper load.

Revised Data of Media Expert Validation

Validate the media in this second stage as a report or review the tool according to the advice of the Media expert. The results of the assessment include:

Table 4. Media Expert Assessment Results Data

No	Aspects	Score Rated	Score Maksimal	Presentace(%)	Category
1	Physical	30	36	83,3	Very Worth It
2	Design	14	16	87,5	Very Worth It
3	Use	17	20	85	Very Worth It
Total Score		58	72	84,7	Very Worth It

In the second stage of validation, the presentation obtained increased from 73.2% to 84.7% of the maximum score. Thus, the Tool can be declared "Very Feasible" according to media experts, at the second stage of validation.

Revised Data Material Expert Validation

At this stage, validation is carried out according to the advice of material experts regarding the reason. The assessment pages include:

Table 5. Material Expert Assessment Results Data

No	Aspects	Score Rated	Score Maksimal	Presentace(%)	Category
1	Physical	25	28	89,2	Very Worth It
2	Use	18	20	90	Very Worth It
Total Score		43	48	89,5	Very Worth It

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From the data above, the total score is 89.6% which is included in the Very Decent category. The data has increased from 72.9%, after being revised according to material experts to 89.6% and is already in the very decent category.

Small Group Product Trials

Small group trials are intended to be the initial reference for field trials, regarding effectiveness when compared to training basic block techniques manually. Small group trials are carried out on students who take volleyball courses as many as 10 people, trial procedures in the form of preparation or series of tools, trial concepts, technical implementation of trials which include, basic volleyball block techniques.

Table 6. Small group Test Results Data

No	Aspects Rated	Score	Score Maksimal	Presentace (%)	Category
1	Physical	115	144	79,8	Very Worth It
2	Design	44	60	73,3	Proper
3	Use	86	108	79,6	Very Worth It
Total Score		245	312	78,5	Very Worth It

From the results of the data above which show physical aspects of 79.8%, design aspects of 73.3% and use of 79.6% which are all included in the category "very feasible" only designs are still feasible categories. So with the results all obtained a total score of 78.5%. The results also show the "Very Decent" category.

Large Group Trials

Large group trials were conducted on 40 students of the FKIP UNTAN volleyball coaching study program. The trial was carried out in parallel, meaning that all students did one form of exercise first and then continued to the next form of exercise.

Table 7. Large Group Trial Results Data

No	Aspects Rated	Score	Score Maximum	Presentace (%)	Category
1	Physical	1130	1440	78,4	Very Worth It
2	Design	480	600	80	Very Worth It
3	Use	890	1080	82,4	Very Worth It

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Total Score	2500	3120	80,1	Very Worth It

The results of large group trials can be concluded regarding the development of volleyball block training equipment media to get results, the physical aspect is 78.4% with the category Very Feasible", the design aspect is 80% categorized "Very Feasible", while the use aspect of 82.4% is categorized "Very Feasible". So that the total feasibility assessment of the development of volleyball block training equipment media according to player and coach respondents of 80.1% is categorized as "Very Feasible".

DISCUSSION

This development research aims to provide training facilities and equipment to help the training process of basic volleyball techniques to be more practical, varied and effective. The development of the block training tool media involved respondents from volleyball players and coaches. As a Research and Development (R&D) method. According to (Sugiyono, 2014), the steps or stages of development research include: Potential and problems, data collection, product design, expert validation, product revision, small group trials, product revisions, large group trials, product revisions and mass products. This research and development is the development of block training tools media as a training medium for basic volleyball block techniques, as for the topics discussed, among others:

Component

The frame is made of iron, the reflector block is made of plywood board with a thickness of 12 mm which is installed on the iron block frame. To add practicality to the media developer tool, the block training tool can be disassembled which is divided into 4 parts. The design aspect is that the developer colors choose black and red.

Aspects of use

Aspects of using training tool media include how, when and how tool development functions in an exercise. The developer specializes in basic engineering

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exercises that can be performed on the development of volleyball block training tool media. The use of block training equipment media as a medium for training basic block techniques in volleyball to support quality training, should be used when practicing basic techniques, game sessions to avoid players waiting for their turn to play, warming up while touching the ball for reserve players. This tool can also be modified by simply removing two baud and bending it, making it easier for users to place in a place that is not too wide. In addition, this tool can be disassembled into 4 parts of iron plates, simply by removing the baud on the media block tool.

Quality Quality Tools

The development of this block training tool media has been tested 3 times with diverse respondents, ranging from experts (media and material experts) tool developers, volleyball players and coaches. The size of the tool is in accordance with the needs not too small and not too large to be used in basic volleyball block technique training, the bounce of the board produced from two parts is quite good and the resistance of the block training tool to withstand hard balls, the weather (rain and heat) is also good.

The results of data from the validation of media and material experts show that the product is very suitable for use, but there are some improvements according to the advice of media experts are the addition of pockets to store keys and pens for marking in the slope regulator so that they can be balanced between the right and left of the foundation, while media experts want that the reflecting board at the top is changed from wood to plywood board with a thickness of 12 mm, on the grounds that it can lighten the burden above.

During small group trials, developers must compile the series into a complete training tool medium. The respondents watched carefully the step-by-step preparation of the tool. After the tool was completed according to the form of media development of the block training tool, respondents gathered and listened to the developer's briefing. There were 3 experts in small group trials and there were 10 players and 1

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coach in small group trials and 30 players and 1 coach in large groups. The first step of testing the product is for respondents to perform block techniques in front of the block training tool media with a distance of 50 centimeters.

The results of small group trials the average number of scores obtained was 77.1% So it can be concluded that the results of research on the development of volleyball block training equipment media are categorized as "Very Feasible" with revised notes. While in the large group test, the average value obtained was 80.1%. So it can be concluded that the results of the research on the development of block training tool media as a volleyball block training medium are "Very Feasible". After conducting expert validation and conducting trials, the final product of the development of block training tool media can be as follows:

The product that will be produced through media development research on basic volleyball block technique training tools has the following specifications:

The results of the research product entitled the development of block training tool media as a training medium for basic volleyball techniques with a rectangular prism shape, on the front (face) for block board media is 200 cm x 80 cm while at the bottom 50 cm x 100 cm.

The skeleton is made of iron divided into 3 parts. The slope of the top block board can be adjusted as needed, functioning for media blocks. The board is made of plywood board with a thickness of 12 mm in white which is pressed with an iron block frame. The height of the block can be adjusted according to the child's ability and this tool is very flexible to be raised and lowered. This block training tool has various basic technique practice functions such as bottom passing, top passing. This volleyball block training tool media is expected to attract the attention of children and coaches so that it can be a medium that can provide a portion of exercise.

CONCLUSION

Based on the results of research and development of volleyball block training equipment media products that have been carried out, it can be concluded that this

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development product is very feasible to be used as a training medium for basic volleyball block techniques. The final product of this development is an innovative media development training tool that is very appropriate if used as a training tool media for basic volleyball block techniques.

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