

The Development of a Box Rebounder Tool as a Media for Training Basic Passing and Controlling Techniques in Football

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ABSTRACT

This study aims to develop a box rebounder tool as a training medium for basic passing and controlling techniques. The research was conducted in April 2023. The research location was at SSB Cemerlang Sidodadi Ramunia and SSB Kualanamu. The research subjects in this study were 10 people for small group trials and 20 people for. This research method is research development (R & D). In the small group trial of the athlete subject, a score of 540 was obtained with a percentage of 77.14% (valid) meaning that the product of the development of the box rebounder tool for passing and control techniques is valid. In the small group trial of the training subjects, a score of 61 was obtained with a percentage of 81.33% (valid) meaning that the product of the development of the box rebounder tool for passing and control techniques is valid. In the trial of the large group of athlete subjects, a score of 1204 was obtained with a percentage of 86% (valid) meaning that the product of the development of the box rebounder tool for passing and control techniques is valid. And for testing large groups of training subjects, a score of 211 was obtained with a percentage of 93.78% (valid) meaning that the product of the development of the box rebounder tool for passing and control techniques is valid. So it can be concluded that the development of the Rebounder Box Tool as a Media for Training the Basic Techniques of Passing and Controlling in Football is considered valid (successful).

KEYWORDS

football; passing and control techniques; box rebounder

INTRODUCTION

The rapid progress of science and technology (IPTEK) cannot be denied that various research innovations are growing rapidly. Advances in Science Technology or Science and Technology have helped many human activities in various activities, especially in the field of sports which has helped in the field of training and matches. Humans themselves are the main subject of science and technology factors developed. Science and technology support has helped many athletes to excel so that in starting from talent search, training, to competitions athletes and coaches are assisted.

Football is currently developing Indonesia also has the desire to show its existence in the world of local and international football. This has made many experts think about how the quality of Indonesian football can be calculated. Then how can we form a quality national team in order to answer the great expectations of the Indonesian people whose loyalty cannot be doubted. Unfortunately, there are a lot of things that need to be fixed in

Indonesian football, one of which is the training process. In Indonesia, the training process is still different from abroad. Abroad, the training aids are more sophisticated than those used in Indonesia. Utilization of modification tools is expected to help trainers to design training activities. It is known that so far most trainers have very minimal use of tools during training

The observation results also show that SSB Cemerlang and SSB Kualanamu already use technology in training, namely there are only facilities such as kun, training for passing and controlling is still done manually. Students of SSB Cemerlang and SSB Kualanamu have problems with passing and controlling techniques. Following is the weak passing data at SSB Cemerlang Sidodadi and SSB Kualanamu as evidenced by the passing and receiving tests developed by Ardi Nusri (2018). In the passing and receiving test where the person tries to stand within 10m of the wall in a 2 x 2 m square area. After getting the signal to start, the person tries to kick the ball against the wall in front of him, the ball that bounces off the wall must be stopped by the person trying and continues by kicking the ball again until it is repeated 2 times. Each student is allowed to choose passing and controlling using the left and right feet when passing to the wall. The results of the passing and receiving tests from SSB Kualanamu and SSB Cemerlang Sidodadi students were that out of 20 people, only 4 people got point 1, while there were 8 people who got point 2, and who got point 3 there were 8 people. This means that there are still problems with the passing of SSB Kualanamu and SSB Cemerlang Sidodadi students where, only 4 people get point 1, point 1 is obtained if athletes can kick at the left and right corners of the specified box. While points 2 and 3 there are 16 people because points 2 and 3 are easier to pass because they are straight parallel to the placement of the box.

Based on this problem, the researcher wants to develop basic technical training aids. Previously there were several basic technical aids in soccer, including Sports Assistance Adjustable Football Trainer, Board Rebounder and Pro Rebounder. The Assistance Adjustable Football Trainer is a basic technical aid in football that uses a rope connected to the ball, then the Board Rebounder and Pro Rebounder are ball bouncing aids, many sports use the rebounder as a training medium, such as baseball, tennis, volleyball and so forth".

RESEARCH METHODS

This type of research is development (research and development). Research Development to develop aspects of science. In research on the development of rebounder tools for passing and controlling. Borg & Gall proposed a series of steps that must be taken in this approach including 10 general steps, in this study the authors carried out 8 research steps. The steps of this research are as follows according to Borg and Gall (2007):

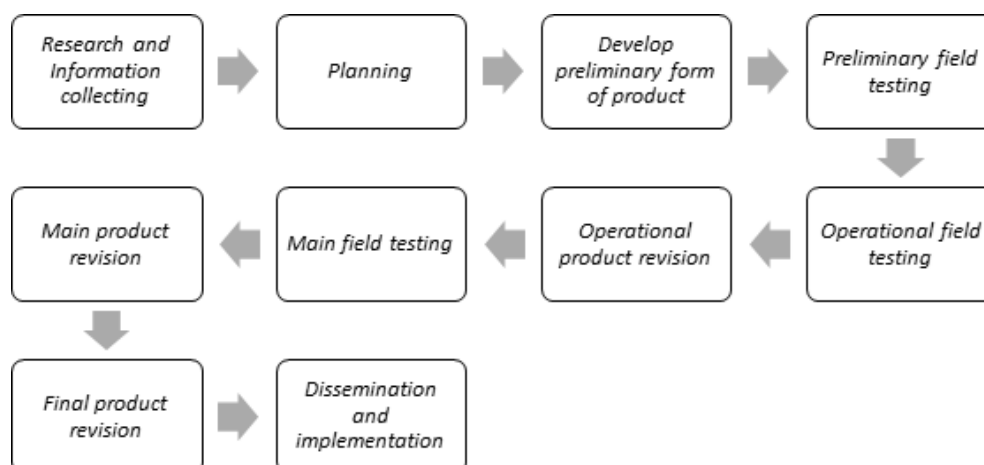


Figure 1. The research steps according to Borg and Gall

RESULTS AND DISCUSSION

1. Research and Information Collecting, at this stage the researcher made observations and the author's finding is the Research Gap in this study is the research of Entis Sutisna (2018). The results of the study show that the rebounder tool that has been developed for basic football technique training is feasible. These results were obtained from the results of validation from a) subject matter experts of 80% or appropriate; b) media experts at 93% or appropriate; c) small group trials of 77.7% or appropriate; d) large group trial with a result of 78.8% or appropriate. The product produced in this development is a rebounder equipped with a user manual. The rebounder tool has been declared fit for use as a training medium for basic football technique training. According to the researcher, the weakness of the alar rebounder by Entis Sutisna is that it is too small and focuses on tools that can still be used (used materials). more durable.

Researchers made observations at SSB Cemerlang and SSB Kualanamu from May 2022 to June 2022 and participated in training together and watched matches to see what were the obstacles. The findings of the researchers are that there are still many children who have not been able to carry out proper passing and controlling. on July 30 SSB Kualanamu.

The observation results also show that SSB Cemerlang and SSB Kualanamu already use technology in training, namely there are only facilities such as kun, training for passing and controlling is still done manually. Students of SSB Cemerlang and SSB Kualanamu have problems with passing and controlling techniques. Then the coach also explained that it was true that accuracy in children was lacking because of these factors. In addition, many children when passing do not reach the goal or the power when passing is lacking. Passing is also often misdirected or arbitrary. The lack of variety in training because the facilities used are still sober is the cause of children feeling bored and often making basic mistakes in passing during practice and matches.

Following is the weak passing data at SSB Cemerlang Sidodadi and SSB Kualanamu as evidenced by the passing and receiving tests developed by Ardi Nusri (2018). In the passing and receiving test where the person tries to stand within 10m of the wall in a 2 x 2 m square area. After getting the signal to start, the person tries to kick the ball against the wall in front of him, the ball that bounces off the wall must be stopped by the person trying and continues by kicking the ball again until it is repeated 2 times. Each student is allowed to choose passing and controlling using the left and right feet when passing to the wall. The results of the passing and receiving tests from SSB Kualanamu and SSB Cemerlang Sidodadi students were that out of 20 people, only 4 people got point 1, while there were 8 people who got point 2, and who got point 3 there were 8 people. This means that there are still problems with the passing of SSB Kualanamu and SSB Cemerlang Sidodadi students where, only 4 people get point 1, point 1 is obtained if athletes can kick at the left and right corners of the specified box. While points 2 and 3 there are 16 people because points 2 and 3 are easier to pass because they are straight parallel to the placement of the box.

Researchers conducted a needs analysis on 4 trainers who trained at SSB Kualanamu and SSB Cemerlang Sidodadi on May 6 2022, where the results of the trainer needs analysis were: 1) the trainer said he had never provided any tools. 2) the coach said he had used an assistive device in training. 3) the trainer says it requires technological advances in training. 4) the coach said he had never made a new breakthrough. And 5) the trainer says it is effective if the exercises are carried out with interesting aids. The results of this analysis of the trainer's needs, means that the tools

used during training are still not enough to train passing and controlling in SSB students used by the coach.

Then the researcher conducted a needs analysis on the second student of SSB Kulanamu, where a needs analysis questionnaire was distributed to 10 students on May 10, 2022. Based on the results of the student needs analysis it was found that: 1) students said they had practiced using assistive devices. 2) students do not know the rebounder tool. 3) students need variety in exercises. 4) students say they have weaknesses in passing and control. 5) students say that it is effective if the exercises are carried out with interesting aids. From the results of the analysis of students' needs, it was found that they did not know this rebounder tool and students also had weaknesses in passing and control, so they needed an interesting training concept.

2. Planning, at this stage, the writer formulates skills and expertise related to the problem, determines the goals to be achieved at each stage, and if possible/necessary carries out a limited feasibility study.
3. Develop a preliminary form of product, at this stage, the authors develop an initial form of the product to be produced, prepare supporting components, prepare guidelines and manuals.
4. Preliminary Field Testing, at this stage the author does a product trial without any samples and then takes it to an expert. The expert will test the feasibility of the box rebounder product for passing and controlling whether it has been tested or not.
5. After validating with trainers without research subjects, the authors validated the instrument with experts
6. Operational Field Testing, at this stage, the authors conducted initial field trials on a limited scale. by involving as many as 10 subjects. The following are the results of group trials on 10 subjects:

Table 1. Athlete Subject Small Group Trial

No	Responseonse Athlete	Score	Percentage
1	Responseonse 1	55	78.57
2	Responseonse 2	52	74.29
3	Responseonse 3	60	85.71
4	Responseonse 4	61	87.14
5	Responseonse 5	51	72.86
6	Responseonse 6	49	70.00
7	Responseonse 7	56	80.00
8	Responseonse 8	58	82.86
9	Responseonse 9	48	68.57
10	Responseonse 10	50	71.43
Total		540	
Average		54	Valid
Percentage		77.14	

From the test results above in the small group trials of athlete subjects, a score of 540 was obtained with a percentage of 77.14% (valid) meaning that the product development of the box rebounder tool for passing and control techniques is valid.

Table 2. Small Group Trial of Trainer Subjects

No	Coach Responses	Score	Percentage
1	Riki Handoko	58	77.33
2	Fajar Amri	60	80.00

3	Bima Permana	65	86.67
	Total	183	
	Average	61	Valid
	Percentage	81.33	

From the results of the trials above in the small group trials of the training subjects, a score of 61 was obtained with a percentage of 81.33% (valid) meaning that the product development of the box rebounder tool for passing and control techniques is valid.

7. Operational Product Revision, at this stage the author validates experts on football coach experts, material experts and media experts. Following are the results of validation and expert revision as follows:

Table 3. Expert Validation

Name	Expert	Score	Percentage	Category
Dr. Afri Tantri, S.Pd, M.Pd	Material	36	72	Valid
Erwin Syahputra Hutasuhut, S.Pd	Media	65	86.67	Valid
Siswanto	Football Coach	61	81.33	Valid

In the validation results of the small group trial, a score of 36 material experts was obtained with a percentage of 72% (valid), then validation from media experts obtained a score of 65 with a percentage of 86.67% (valid), then a football coach expert obtained a score of 61 with a percentage of 81.36% (valid). After being assessed by experts, the experts revised as follows:

Table 4. Expert Revision

No	Member Name	Revisions/ Suggestions
1	Dr. Afri Tantri, S.Pd, M.Pd	The tool designed in this passing material has not been on target, because from passing and control there is no ball that leads to passing. This tool is for passing the ball to be exact.
2	Erwin Syahputra Hutasuhut, S.Pd	Components need to be ensured so that the better
3	Siswanto	It needs to be tested on a larger sample

From the results of the revision of the experts above, that the three experts provided input and the writer had to improve it before being tested on a large group.

8. Main Field Testing, in the main trial involving 20 athletes. The following are the results of large group trials:

Table 5. Trial of Large Groups of Athlete Subjects

No	Response Athlete	Score	Percentage
1	Response 1	63	90.00
2	Response 2	61	87.14
3	Response 3	59	84.29
4	Response 4	63	90.00
5	Response 5	65	92.86
6	Response 6	50	71.43
7	Response 7	66	94.29
8	Response 8	61	87.14
9	Response 9	65	92.86
10	Response 10	66	94.29

11	Response 11	63	90.00
12	Response 12	64	91.43
13	Response 13	60	85.71
14	Response 14	57	81.43
15	Response 15	55	78.57
16	Response 16	56	80.00
17	Response 17	58	82.86
18	Response 18	60	85.71
19	Response 19	62	88.57
20	Response 20	50	71.43
Total		1204	
Average		60.2	Valid
Percentage		86.00	

From the test results above in the large group trials of athlete subjects, a score of 1204 was obtained with a percentage of 86% (valid) meaning that the product development of the box rebounder tool for passing and control techniques is valid.

Table 6. Large Group Trial of Trainer Subjects

No	Response Athlete	Score	Percentage
1	Riki Handoko	70	93.33
2	Fajar Amri	68	90.67
3	Bima Permana	73	97.33
Total		211	
Average		70.33	Valid
Percentage		93.78	

From the results of the trials above in the large group trials of training subjects, a score of 211 was obtained with a percentage of 93.78% (valid) meaning that the product development of the box rebounder tool for passing and control techniques is valid.

Table 7. Large Group Expert Validation

Name	Expert	Score	Percentage	Category
Dr. Afri Tantri, S.Pd, M.Pd	Material	36	72	Valid
Erwin Syahputra Hutasuhut, S.Pd	Media	70	93.33	Valid
Siswanto	Football Coach	72	96.00	Valid

9. In the validation results of the small group trials, a score of 36 material experts was obtained with a percentage of 72% (valid), then validation from media experts obtained a score of 70 with a percentage of 93.33% (valid), then the football coach expert obtained a score of 72 with percentage of 96% (valid). After being assessed by experts, the experts revised as follows:

Table 8. Major Group Expert Revision

No	Name Expert	Revisions/ Suggestions
1	Dr. Afri Tantri, S.Pd, M.Pd	It is necessary to evaluate the effectiveness test whether the tool is feasible or not for passing and control.
2	Erwin Syahputra Hutasuhut, S.Pd	No revisions
3	Siswanto	No revisions

From the results of the revision of the experts above, that the three experts provide a statement that does not need to be revised.

Discussion

In the first stage of this study the authors found the problem that there were no tools based on technology development or tools carried out by trainers and incomplete facilities and infrastructure. After the writer collected it all, the author's idea emerged to develop a box rebounder tool product where the writer looked for relevant research as a reference. After that, in the second stage, the writer held discussions with experts so that the desired idea could be created by looking for product components and specifications. After that, in the third stage, the writer designed the product design with design experts so that it could be described visually. After that the authors made the tool and tested it on experts and this research instrument was tested on selected expert judgments.

In the fifth stage, the developed product was tested on 10 athletes and 3 coaches to get valid results. Continue to the expert revision where the expert judgment at the sixth stage is in all valid categories but there are still notes of expert revisions and the author must correct this revision before being tested on a larger group of athletes.

There is a seventh stage, the authors tested it on 20 athletes and 3 trainers so that valid results were obtained. After that, proceed to the eighth stage where the product is validated by experts and the three experts say the product is valid and continues with the effectiveness test. In the ninth stage, the effectiveness test is carried out and is in the valid category.

In this study the rebounder tool is one way to improve the quality of passing and control. The reason is because the rebounder tool is still used with an efficient time in training then the ball throws produced by the rebounder tool will vary and train the athlete's readiness to control the ball as quickly as possible. The development of a rebounder tool as a training medium for basic soccer techniques is intended to assist players and coaches in the process of practicing basic soccer techniques.

This research is also related to the relevant research from Entis Sutisna's research (2018). The results show that the rebounder tool that has been developed for basic soccer technique training is feasible. These results were obtained from the results of validation from a) subject matter experts of 80% or appropriate; b) media experts at 93% or appropriate; c) small group trials of 77.7% or appropriate; d) large group trial with a result of 78.8% or appropriate. The product produced in this development is a rebounder equipped with a user manual. The rebounder tool has been declared fit for use as a training medium for basic football technique training. According to the researcher, the weakness of the alar rebounder by Entis Sutisna is that it is too small and focuses on tools that can still be used (used materials) more durable.

CONCLUSION

In the small group trial of the athlete subject, a score of 540 was obtained with a percentage of 77.14% (valid) meaning that the product of the development of the box rebounder tool for passing and control techniques is valid. In the small group trial of the training subjects, a score of 61 was obtained with a percentage of 81.33% (valid) meaning that the product of the development of the box rebounder tool for passing and control techniques is valid. In the trial of the large group of athlete subjects, a score of 1204 was obtained with a percentage of 86% (valid) meaning that the product of the development of the box rebounder tool for passing and control techniques is valid. And for testing large groups of training subjects, a score of 211 was obtained with a percentage of 93.78%

(valid) meaning that the product of the development of the box rebounder tool for passing and control techniques is valid. So it can be concluded that the development of the Rebounder Box Tool as a Media for Training the Basic Techniques of Passing and Controlling in Football is considered valid (successful).

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