6 (1) (2019) 23 - 26

Journal of Physical Education, Health and Sport

http://journal.unnes.ac.id/nju/index.php/jpehs

Development of Media Strike Zone for Pitching Learning Process on Softball

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History Article

Received 23 July 2019
Approved 25 July 2019
Published 31 July 2019

Keywords

Strike zone; Learning Media; Softball

Abstract

Softball games are one form of small ball games learned at school. In the softball game there is strike zone, which is an imaginary field between the elbow and the knee of a batter, and is above the home base. Students find it difficult to find the strike zone so that when throwing pitchers always "ball". when the game takes place students have difficulty determining between "strike" and "ball". The need for learning media that can provide a real form of strike zone for students. This research is a development research that uses the stages of development of Borg and Gall. Based on product testing, the target media strike zone is very suitable with the softball game and can effectively provide information about the real shape of the strike zone in the softball game, as well as helping students to set targets and throw accuracy.

How to Cite

Irsyada, R., et all. (2019). Development of Media Strike Zone for Pitching Learning Process on Softball. *Journal of Physical Education, Health and Sport*, 6 (1), 23-26.

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p-ISSN 2354-7901
e-ISSN 2354-8231

INTRODUCTION

Softball game is a type of small ball game that is taught in schools which consists of several basic techniques such as throw and catch. Besides motor skills related to softball, such as pitching, batting and fielding (Nicholas Flyger: 2012). Mastery of these basic techniques will greatly affect the course of the game. Characteristically these three basic techniques stand alone, but in the execution of the game all three are very related to each other. If the player can master the three basic techniques, the softball game will run well

Basic techniques in softball games include throwing and catching techniques used by players when their team is in a defensive position (defense). If the player can master the throwing and catching technique well then the opponent›s chances of getting points will be small. A defender who can do accuracy throws well will make it easier for friends to do catching and blocking in turning off the opponent›s runner. Conversely if the mastery of throwing techniques and catching players is lacking, then the opponent will easily do offense and get points.

To complicate the opponent›s steps in gaining points, one of the most important elements is the role of a pitcher as a key player in a defensive position. A pitcher who is able to throw or pitch well will make it difficult for a batter to hit the ball. Strike is a condition where a batter cannot hit the ball where the ball has entered the strike zone. Chet Gray (2010) states that the Strike zone is the distance between home plate between the elbow and above the knee of a batter when the batter stands inside the batter box.

Mastery of pitching techniques is very important, considering pitching is the start of a softball game. Throw the pitcher using the underhand throw and must be directed towards the strike zone. An understanding of the strike zone to students is also very important, so students are expected to be able to distinguish whether the results of a strike or ball throw. Based on the results of observations, what often happens is that students have not been able to master a series of movements in learning pitcher throwing techniques. The pitch taken by the pitcher adopts an underhand throw and a pitcher is the player who throws during the game (Marion 2008: 1), but the throw results are faster than the usual underhand throw. Basically the task of a pitcher is to throw the ball past the home base with the height between the knee and elbow (Red Cross 2011: 59) and requires a balance of the body and the characteristics of a good hip muscle (Adam 2017). The area is also often referred to as the strike zone.

The Strike zone is a crucial rule and will determine the pitching position of pitchers (Hua-Tsung 2009). A softball game will start with a pitcher to the batter. The target of pitcher throws is often called the strike zone. A pitcher will try to direct the throw to the strike zone. With the pitcher throwing into the strike zone, a batter is required to hit the ball. If a batter cannot hit the ball in the strike zone, the batter will get a «strike».

As the beginning of the learning process, understanding the strike zone requires assistance and explanation from the teacher and lecturer. Since the srtrike zone is an imaginary area in softball, the role of the teacher and lecturer must be able to provide direction to students continuously so that no mistakes occur in determining the ball or strike. Besides that, there is no difference in understanding between students between the results of ball and strike throws. Based on this, the role of tools and learning media is needed. Media learning is a channel message in the form of material wants to be forwarded to the target (Ali Muhson: 2010) and can increase student motivation (Suliska: 2014). The learning media is the target of pitchers in the form of iron poles and nets that are made in such a way as to form a target throw. It aims to clarify the imaginary area of the strike zone and will make students practice pitchers more easily in directing throws.

What is the role and function of learning media in the target strike zone in softball games?.

METHOD

This research is a development research that aims to produce products in the form of Target Strike Zone learning media. According to Borg and Gall. Research and development is a method used to develop or validate products used in education and learning. The steps of this process are usually referred to as the R & D cycle, which consists of studying research findings related to the products to be developed, developing the product is based on this finding, the test field in the arrangement where it will be used finally, and revises it to correct the deficiencies found in the stage of submitting the test. In programs that are more stringent than R & D, this cycle is repeated until the test data fields show that the product meets defined behavioral goals.

The procedure or steps of development research adopted from the Borg and Gall flow path. According to Borg and Gall The procedures for research and development Borg and Gall

(1989: 784-785) which became the author's reference include: (1) research and data collection, (2) planning, (3) initial product development, (4) initial trials , (5) main product revisions, (6) main field tests, (7) operational product revisions, (8) operational field tests, (9) final product revisions, (10) dissemination, and product implementation.

The types of data in this study are quantitative and qualitative. Quantitative data in the form of a closed questionnaire about the feasibility of products based on the results of material testing and design tests, as well as the level of attractiveness, convenience, and usefulness. While qualitative data obtained from observations about learning, input, responses, criticism and suggestions through an open questionnaire.

Data collection in this study was conducted using instruments in the form of questionnaires, observation sheets, and tests. Data analysis based on expert test instruments and field tests was conducted to assess the suitability of the product as a learning medium. This assessment instrument has four answer choices according to the content of the questions, each of which has a different score.

The total rating score can be searched using the formula; Rating score =

(scores on instrument/The Highest score) x4

Table 1. assessment instrument

Score	Conformity Assessment	Assessment of attractiveness	Quality Assessment
3,26 – 4,00	Very Suitable	Very Easy	Very Helpful
2,51 – 3,25	Suitable	Easy	Help
1,76 – 2,50	Not Suitable	Difficult	Not Helpful
1.01 – 1,75	It is not in accordance with	Very Difficult	Not Helpful

RESULTS AND DISCUSSION

Based on the stages of development carried out, the following results are obtained:

Research and data collection

At this stage learning observation and needs analysis are carried out in the learning process of softball games. Based on the observation results, pitcher throws are always not targeted and based on the pre-research questionnaire the students are still having difficulty understanding the imaginer field of the strike zone.

Planning

Based on the results of observations and pre-studies, students need the target strike zone learning media to be able to provide a real shape of the strike zone so that it is easier to direct the throw. The next step is making research instruments in the form of product conformity questionnaires that are filled and assessed by the softball game experts. In addition, a user instrument was also prepared which was filled by students as feedback and input for media development. In this plan a draft of the strike zone learning media for softball targets was also made.

Initial product development

This development stage is in the form of making the target strike zone using an iron pipe in accordance with the draft that has been prepared in the planning process. Making media is adjusted to the height that can be adjusted according to the high condition of a batter. In addition, the size of the strike zone width is adjusted to the width and size of the home base as a tool foothold.

Initial trial

Products that have been made are then carried out initial trials at the softball team's training ground. At this stage, analysis and evaluation of softball game experts is carried out. At this stage the Expert Game fills the instrument in the form of a questionnaire that has been compiled. Based on the results of expert evaluation, the learning media stated that the target strike zone was in Very Approriate with softball regulations with a score of 3.52.

Main product revision

Based on the results of the initial product trial, the target strike zone learning media needed to revise the product in accordance with expert input and advice, especially at the height of the tool. The height of the tool should be adjustable and adjusted to the height of the bat.

Main field test

After revising the main product according to input from the game expert, then the main field test is then carried out. The sample at this stage is the PJKR major in softball. The sample fills out the questionnaire provided. Based on the student questionnaire, the target strike zone learning media with a 3.3 questionnaire score was very easy to use. In addition, this tool is also considered very helpful in softball learning in order to provide a real form of throwing target targets with a score of 3.8 questionnaires. Input from students is giving color so the target is more visible.

Revision of operational products

As per the input from the students, repairs were made by giving color to the target so that the target of the throw was more visible.

Test operational field

After the revision was made in the form of giving color to the tool, then the operational field test was conducted. At this stage students throw with the target zone's strike target. The student's pitch becomes more directed and goes into the target zone's strike.

Final product revision

Based on the operational field test, the target strike zone learning media is appropriate and there is no product revision. So that the target strike zone learning media can be disseminated.

Dissemination and product implementation

Furthermore, in the final stage of product development, the target strike zone is disseminated and applied to learning softball games.

The development of a tool in the form of a target strike zone begins with problems students have difficulty understanding the imaginary field of the strike zone so that the results of throwing on pitching material do not enter the strike zone. The target strike zone development has passed the development stages of Borg and Gall and input and evaluation from experts on softball games. The draft strike zone target tool is very much in accordance with the rules used in the sotball game. The rule in question is the width of the tooling foot in accordance with the width of the home base which is 45 cm. While the height of the tool can be adjusted according to the height of the field between the knee and elbow of a batter. The target media strike zone is very easy to use. Students only have to put it on the home base and then adjust the height according to the batter or according to the strike zone rules in the softball game. The target strike zone is considered very helpful in softball learning in throwing material, especially pitching in accordance with the questionnaire filled in by students. Students can find imaginary fields of the strike zone by using the target media strike zone. By using the strike zone of this target, it is hoped that during the actual softball game students can easily find the imaginary field of the strike zone of a batter.

CONCLUSION

Based on the results and discussion of the research it can be concluded that the target strike zone learning media is in accordance with the rules of the softball game. In addition, the target media strike zone is very easy to use and is very helpful for students in understanding the imaginary field of the strike zone so that throwing pitching students is easier to direct the throw.

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