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# Development of Shooting and Dribbling Skill Test Instruments for U-23 Futsal Players in Central Java Province

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#### **Abstract**

A futsal basic skills measurement tool with excellent validity and reliability in test shooting and test dribbling was created as a result of this research to be used in the teaching and training of U-23 futsal sports. The research design employed was development research, with procedures for formulating initial product types/models for PORPROV Surakarta futsal players aged 18 to 23 years, with as many as 15 players for small groups and 90 PORPROV players for group trials. This is made up of the six districts of Banyumas Regency, Klaten Regency, Kebumen Regency, and Kendal Regency. The validity, reliability, and norms of the product skills test were then evaluated. Validity and dependability tests for small-scale instruments consisting of the basic skills of the shooting test obtained a value of 0.959 and the shooting retest obtained a value of 0.971 while the reliability test was 0.979. The dribbling validity test for the test was obtained at 0.968 and for the retest was 0.964 with a reliability of 0.893. The results of the large-scale validity of the basic skills of test shooting obtained a value of 0.948 and a retest obtained a value of 0.988 while the reliability test was 0.971. The results of the large-scale validity on the basic skills of the dribbling validity test for the test were obtained at 0.995 and for the retest at 0.995 with a reliability of 0.990, so it can be said that a reliable measuring instrument will still produce the same relative value even though it is carried out at different times. There is no difference between the small group and the large group in the U-23 futsal test shooting and test dribbling basic skill norms so the measuring instrument can be said to be objective.

**Keywords:** Test Shooting, Test Dribbling, Futsal U-23.

## INTRODUCTION

In order to promote sports achievement, the exercises conducted must be designed to develop the necessary components. Several components, including technical coaching (skills), physical coaching (physical fitness), coaching tactics (mental, memory, and intelligence), and the maturation of champions, are required in order to be able to play well and correctly and to achieve the highest performance.

Shooting is a fundamental skill method that futsal players need to perfect since it allows them to score goals. This is so that every player has a chance to score goals and win games or matches. While mastering the dribbling technique is a crucial ability for every futsal player, it is not sufficient. Every participant can control the ball before it is passed to them via dribbling. to his friends to create opportunities to score goals

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So far futsal does not have a standard form of test to determine the skill level of each individual athlete in playing futsal. The importance of skill and identification of player skills is the basis for creating an objective, valid and reliable tool. Research conducted by Narlan et al., (2017) shows that the development of futsal skill instruments for the SMA/K student category resulted in low validity and reliability values. Furthermore, the development of a basic futsal skill instrument model that was carried out by Wijayanti & Kushartanti, (2014), resulted in high validity and reliability values but this test was limited only to the children's age group. Likewise in the research of Farhani et al., (2019) developed a futsal test with valid results, but has limitations, namely the dominance of the physical aspect is greater in this test. From some of these studies, it is necessary to follow up to develop a futsal playing skill measurement tool that is in accordance with the characteristics of the players and the real futsal game.

In making a test or instrument there are several criteria that must be followed, namely the level of validity and reliability must be tested first (Marom and Fatkur, 2014). Because the researcher will make a skill test, test the validity of the test by correlating the test results with the combined score of the test items created (total score). Measuring the level of constancy of a test can be done in several ways, namely: test-retest technique, halves, equivalent measurements. This validity and reliability test was carried out from the test items created (total score). Measuring the level of constancy of a test can be done in several ways, namely: test-retest technique, halves, equivalent measurements (Soekatamsi, 1991: 14). These elements are the foundation in sports coaching. If these elements are attached to each individual player, then it will be better and right and can achieve the highest performance. For this reason, it is necessary to measure all the basic equipment of these players so that coaches are able to know the development of their students, especially in the sport of futsal.

According to Suharno (1993: 42) that "technique is a process of movement and proving in the best possible practice to complete a definite task in a sport". Mastery of the basic techniques of playing futsal is one of the elements that determines the wins and losses of a team in a match, in addition to elements of physical condition, tactics and mentality. So if you want to improve the quality of futsal athlete performance, then this basic technique must really be mastered by athletes first.

## **METHOD**

The research design used was development research with procedures for planning product development to be developed and developing initial product types/models for futsal players aged 18-23 years for PORPROV Surakarta and Karanganyar futsal players as many as 15 players for small groups and 90 PORPROV futsal players for trials. try a large group consisting of 6 districts namely Banyumas Regency, Klaten Regency, Kebumen Regency, Kendal Regency and Kudus Regency. Then tested the validity, reliability and norms on the product skills test.

## **RESULT**

After making improvements based on input and suggestions from expert validators, then product trials are carried out on a small and large scale. Small-scale trials were carried out on 2 PORPROV futsal teams with 15 players each aged 18-23 years, namely the Surakarta and Karanganyar Regency futsal teams, while large-scale trials were carried out by 90 players from 6 PORPROV teams, namely Banyumas Regency, Klaten Regency, Kebumen Regency, Kabupaten Kendal, Kudus Regency and Jepara Regency. Validity and reliability tests were carried out with the help of analysis on SPSS 25 using the product-moment correlation test and Cronbach alpha. These results can indicate that from small-scale trials,

the initial product was declared to have high validity and reliability in a small group, namely PORPROV Surakarta and Karanganyar futsal players.

These results can indicate that from small-scale trials, the initial product was declared to have high validity and reliability in the PORPROV team for Surakarta City and Karanganyar Regency.

Table 1. Test the validity and reliability on a small scale PORPROV Team in Surakarta City and Karanganyar Regency in Test Shooting.

Product Moment Validity Test				
Test	Technique	R count	Probability	Probability
	Test	0,990	0,000	Valid
2	Retes	0,990	0,000	Valid
	(	Cronbach Alpha Re	eliability Test	
	Shooting	0.979	0.000	Reliabel

Table 1. above shows the results of testing the validity and reliability of products on a small scale for test shooting with a probability value of <0.05. These results can show that from small-scale trials, the initial product was declared valid and reliable in the PORPROV team for Surakarta City and Karanganyar Regency.

Table 2. Validity and Reliability Tests on a small scale PORPROV Surakarta and Karanganyar Teams on the Dribbling Test.

Product Moment Validity Test					
Test	Technique	R count	Probability	Information	
1	Test	0,976	0,000	Valid	
2	Retes	0,966	0,000	Valid	
	Uji F	Reliabilitas <i>Cronba</i>	ch Alpha		
	Dribbling	0.979	0.000	Reliabel	

Table 2. above shows the results of the product validity test on a small scale for the dribbling test which has a probability value of <0.05. These results can show that from small-scale trials, the initial dribbling product was declared valid and reliable by the PORPROV team in Surakarta City and Karangayar Regency.

Test the validity and reliability of test shooting and dribbling on a large scale that have been tested on Central Java PORPROV players can be seen in the following table.

Table 3. Test of validity and reliability on a large scale Central Java PORPROV Team in Test Shooting.

Product Moment Validity Test						
Test	Technique	R count	Probability	Information		
1	Test	0,988	0,000	Valid		
2	Retes	0,986	0,000	Valid		
	Uji F	Reliabilitas Cronba	ch Alpha			
	Shooting	0.943	0.000	Reliabel		

Table 3 above shows the results of testing the validity and reliability of products on a large scale for test shooting with a probability value of <0.05. These results can show that from large-scale trials, the initial product was declared valid and reliable by the Central Java PORPROV team.

Table 4. Validity and Reliability Tests on a large scale Central Java PORPROV Team in Test Dribbling.

Product Moment Validity Test					
Test	Technique	R count	Probability	Information	
1	Test	0,995	0,000	Valid	
2	Retes	0,995	0,000	Valid	
	Uji R	Reliabilitas Cronba	ch Alpha		
	Dribbling	0.979	0.000	Reliabel	

Table 4 above shows the results of the product validity test on a large scale for the dribbling test which has a probability value of <0.05. These results can indicate that from large-scale trials, the initial dribbling product was declared valid and reliable in the PORPROV team for Surakarta City and Karangayar Regency.

Table 5. Comparison of U-23 Basic Futsal Skill Norms for Small Groups and Large Groups

in the Shooting Test and Dribbling Test.

Category	Test Shooting		Test Dribbling	
	Kel.Small	Kel.Big	Kel.Small	Kel.Big
	n (%)	n (%)	n(%)	n(%)
Less	6 (20,0%)	3 (10,0%)	3 (10,0%)	16 (17,8%)
Not enough	7 (23,3%)	26 (28,9%)	5 (16,7%)	24 (26,7%)
Enough	6 (20,0%)	28 (31,1%)	8 (26,7%)	22 (24,4%)
Good	8 (26,7%)	24 (26,7%)	11 (36.7%)	17 (18,9%)
Very well	3 (10,0%)	8 ( 8,9%)	3 (10,0%)	11 (12,2%)
P-Value	0,099		0,290	

Based on table 5, it shows that there is no significant difference in the norms for test shooting and test dribbling (p > 0.05) so that the product instrument used is objective.

## **DISCUSSION**

The results of the analysis of validity and reliability test data in small groups and large groups in test shooting and dribbling tests for U-23 players obtained can demonstrate that the constructed measuring instrument can be trusted or reliable. The reliability of the measuring instrument is demonstrated by two trials with samples and the same test model at different times, and since relatively consistent results are obtained, it can be deemed to be reliable c Both internally and externally, reliability can be achieved. Test-retest (stability), equivalent, and a combination of the two are the methods used for external testing (Sugiyono, 2010).

The selection of the rating scale is the closest in terms of the instrument's compatibility with the research done. of results. According to Verducci (1980: 185) "the rating scale can be used as a measurement tool that is valid enough to measure various types of objectives in physical education, especially when the target results prioritize the terminology of the process compared to the product." So it can be concluded that a study that focuses on the implementation process can use a rating scale as a measurement instrument. In physical education and sports, research conducted can observe the process of implementing movement activities. Because the main subject of research in the world of sports is human movement.

Sugiyanto (1993: 66), states that "measurement criteria are said to be good if they meet the criteria: the measurement instrument must be valid, reliable, easy to administer and there is an assessment norm". The basic futsal technique test instrument developed will require an assessment of the final results. For the selection of the type of rating scale used, it is adjusted to the method of data collection and the desired goals. The selection of this form

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is based on the criteria for the type of rating scale that is in accordance with the mechanism of research implementation and the subjects to be compared. According to Verducci (1980: 188) "the absolute rating scale has the advantage that one group of students or subjects can be compared with another group of subjects because these subjects already have the ability to anticipate the same standards."

### CONCLUSION

- 1. Forms of futsal basic skills tests constructed in this study include test shooting and dribbling.
- 2. The basic skills of futsal instrument is stated to be reliable, and the reliability measured from the correlation coefficient between small group trials and large group trials (test-retest) shows a positive and significant correlation coefficient.
- 3. The objectivity of the instrument through a comparative test, namely the chi square test, resulted in no difference between the small group and the large group on the U-23 U-23 basic futsal skill norm test shooting and test dribbling, because  $\chi 2$  has a p value > 0.05, the measuring instrument can be said to be objective.

## SUGGESTION

- 1. For future researchers who will develop instrument models for shooting and dribbling skills, it is better to carry out product dissemination for wide and planned use of the product.
- 2. Further researchers are expected to pay more attention to research objects and facilities in conducting trials of a test instrument, because the ability level of each sample and limited facilities will greatly affect the results of the research conducted.

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