Reliability and Validity of Passing and Control Test of Students Football Skill at FIK UNP

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ABSTRACT

In this study, we examined the reliability and validity of new football skills tests. Fifty advanced football students repeated trials of passing, and control skills on different days. Passing and control skills required players to rebound a moving ball and moving clockwise against the four specified targets. Each trial consisted of 14 passes. The accuracy of ball rebound, precision, and success were determined for all tests using video analysis. Systematic bias was small (<9% in all measures) and all outcome measures were similar between trials. Test–retest reliability statistics were as follows: (1) Validity degree of *"Crossways Passing and Control Test (C-PCT)"* in football on FIK UNP advanced football student, obtained 0,718 (good). (2) reliability degree of *"Crossways Passing and Control Test (C-PCT)"* in football on FIK UNP advanced football student, obtained 0,875 (accepted). Further studies are needed to evaluate the reproducibility of this skill test in different populations including for elite player football.

Keywords: Validity, Reliability, Passing and Control in Football

1. INTRODUCTION

Football has increased quite rapidly, this thing being a proof of the game of football has become a universal sport, The world community is almost certainly very familiar with this sport. To be able play good football is needed mastery of football techniques, because the technical ability is very supportive a player in playing football.
The fundamental principle of football is to score more goals than the opposing team and so the most highly valued skills are those that lead to goals being scored [1].

The lack of valid and reliable tests, therefore, has hindered research into football skill performance. One study has attempted to address this problem by examining the success in tackling opponents and in controlling, passing, dribbling, heading, and shooting the ball during a match [2].

Passing and Control is one of the basic techniques an athlete must have in a football game. Usefulness of Passing and Control is to pass the ball to friends and friends who keep the ball able to control it, this technique is useful in the preparation of attacks and create opportunities for make goals in a match. When the ability of Passing and Control is good then the chance to win the game will be greater.

For that players are required to have a complex technique that supports the achievement of desired achievement, one of which is Passing and Control ability. In this case, the technique is one of the elements affecting the success of players in doing Passing and Control. However, in reality still a lot of players who have not mastered the technique of Passing and Control well, to see the high-low ability of Passing and Control a player needs a proper and fixed test. But in the field, maximal forms of tests were not used by faculty and trainers with a standard in measuring the level of ability Passing and Control.

Similarly in sports side, especially in various high level competition of sports, measurement and evaluation of skills become an important part, because with the measurement will be obtained information that can be used for various purposes, such as; do the selection, determine the classification of the students or athletes, determine the material in preparing the exercise program, determine the methods and tools needed for the exercise, in addition to motivate and determine the appropriate evaluation tool.
[3] "Test is one of the tools or procedures required to collect data of a person, things or object through certain measurements or rules". Each will perform a test, either the beginning of the process or the end of the activity, which aims to obtain information or data. Information or data obtained can be through a tool called a test instrument. With the instrument test, then a trainer, lecturer or teacher can make measurements to the repondent.

The test is said to be good if it can provide precisely related data, the test analysis in question is a test that meets the good criteria such as: [3]: validity, reliability, objectiv, economical, have assessment norms, have implementation instructions, duplicated form of skills, Fun, contains educational elements. Furthermore [3] "A test is said to be valid if the test measures exactly what should be measured". Then, the validity level of a test is called validity, whereas a test is said to be reliable if it can measure constantly what should be measured. Therefore to see the level of validity and keajekan a test so it needs to see the degree of coefficient of a test.

Reliability has been defined as the reproducibility of values produced from repeated trials performed by the same individuals [4]. Given that tests designed to replicate specific areas of sports performance are commonly used to investigate the influence of nutritional interventions [5], it is important to know the reliability of specific tests.

Furthermore, the reliability of such tests should be determined before validity (the extent to which a test measures what it purports to measure) because validity is compromised if consistent values do not result from repeated measurements [6].

Reliability refers to the consistency of a variable measured during repeated tests under the same conditions, whereas validity refers to the degree of similarity between test performance and true performance [7]. High levels of reliability and validity ensures that changes resulting from an intervention do not reflect measurement error or inter-individual differences, and that such changes will transfer to competition performance [8].

The purpose of this study is to determine the level of validity and reliability Test Passing and Control in the game of football with the name "Crossways Passing and Control Test" in the Football Game for FIK UNP Students.

2. METHODS

2.1 Participants

Samples in this study were students who take courses in the advanced of football consists of two (2) sections totaling 50 players.

2.2 Experimental design

This study consists of two parts: an assessment (1) re-tests reliability and (2) establishes validity. Reset tests were examined on the 50 players. The validity is then evaluated using two groups of players, equal to the number and differentiate it by standard play (professional player vs. recreational player). To reduce the effect of anticipated court orders, players attend one practice session before completing two main exams (1st and 2nd experiments) on different days. The main trial is separated by a maximum of 2 days. To minimize the effects of circadian rhythms and other sources of similar variations, 2 trials began within one hour of starting time of 1 experiment and the players were required to refrain from physical weight of activity and caffeine consumption for 2 days before all test sessions. At the end of the study, participants gave them a verbal confirmation that they had fulfilled all the clues.

2.3 Skills testing

After meeting the standards for testing, the player arrives at a pre-planned skill test site. The test begins with the tester standing in the middle circle area with diameter s 100 cm, After there is a signal "Yes" tester directly passing to the wall as much as possible and control the ball back for 30 seconds. The ball that came out of the middle area, left alone, then take the closest sphere ball. For a non-reflective ball or loose control, but the ball is still in the execution area, the ball may be taken by the tester to be brought to the center of the circle, to perform the passing

and control as before. The number of passing and control scores, calculated based on the number of passing and controlled balls controlled within the circle. This test is carried out as much as 1 (one) time repetition. The final score is the average of the test execution.
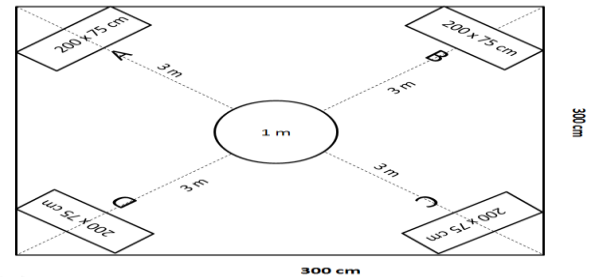

Figure 1. Diagram Test.

2.4 Statistic analysis

To determine the validity and reliability of this test, statistical analysis was performed using the product moment formula by Pearson in[9].

3. RESULTS

3.1. Crossways Passing and Control Test in Football Games with Motor Capabilities

Based on the measurement results of the implementation of Crossways Passing and Control Test on football games conducted on FIK UNP students with a total sample of 50 people. The highest score is 16, the lowest is 8, the average is 11.95, the median is 12.00, the value that often arise is 12.50 and the standard deviation is 1.79 and the variant is 3.21. Then the distribution will be presented based on the test norms that have been analyzed in the previous section. For more details, can be seen the frequency distribution in the table below:

Table 1. Distribution of Frequency Crossways Passing and Control Test.

Interval	Fa	Fr%	Category
$\geq$14.65	3	6.00	Very Good
14.64 - 12.86	10	20.00	Good
12.85 - 11.05	21	42.00	Average
11.04 - 9.26	12	24.00	Poor
$\leq$9.25	4	8.00	Very poor
Total	**50**	**100.00**	

Based on the above table of 50 samples in this study it turns out that 3 people (6%) are in **very good** category, 10 people (20%) are in **good** category, 21 people (42%) are in **average** category, 12 people (24%) are in **poor** category and 4 people (8%) are in **very poor** category.

3.2. Crossways Passing and Control Test in Football Game with Judge Observation Values

Based on the measurement results of the

implementation of Crossways Passing and Control Test on football games conducted on FIK UNP students with a total sample of 50 people. The highest score is 34, the lowest is 24.67, the average is 29.91, the median is 30.33, the value that often arise is 30.33 and the standard deviation is 2.36 and the variant is 5.59. Then the distribution will be presented based on the test norms that have been analyzed in the previous section. For more details can be seen the frequency distribution in the table below:

Table 2. Distribution of Frequency Crossways Passing and Control Test.

Interval	Fa	Fr%	Category
$\geq$33.46	3	6	Very Good
33.45 - 31.10	13	26	Good
31.09 - 28.71	22	44	Average
28.70 - 26.35	6	12	Poor
$\leq$26.34	6	12	Very poor
Total	**50**	**100**	

Based on the above table of 50 samples in this study it turns out that 3 people (6%) are in **very good** category, 13 people (26%) are in **good** category, 22 people (44%) are in **average** category, 6 people (12%) are in **poor** category and 6 people (12%) are in **very good** category.

3.3. Data analysis

From the data analysis after correlating the value of test result and score through judge in Crossways Passing and Control Test, it turns out the correlation number shows r = 0.809, it can be said Crossways Passing and Control Test football game on FIK UNP students is **valid**. So the validity level of Crossways Passing and Control Test of men's group in football game on FIK students is included in **good** category.

From the data analysis after correlating the value of the first test result of the second test result of Crossways Passing and Control Test, it turns out the correlation number shows r = 0.875, it can be said Crossways Passing and Control Test football game on FIK UNP students is reliable. So the reliability level Crossways Passing and Control Test men's group in the game of football on FIK students is included in the category can be accepted**.**

4. DISCUSSION

Barrow and colleagues [10] suggested that reliability is the extent to which an instrument consistently measures whatever it measures. Many methods of determining reliability were used in this study for comparison with previous (and future) tests and to increase the stringency with which the reliability can be assessed. [11] suggested that skill is also synonymous with the minimum outlay of time and energy.

Although it has been suggested that passing accuracy can differentiate passing performances in players of differing standard [5], data to support this statement have

previously been unavailable. Football involves the application of three types of skill–cognitive, perceptual, and motor–that operate simultaneously in a rapidly changing environment [12]. Although there are some closed skills during football (e.g. free kicks and corner kicks), the majority of play is open skill. For this reason, isolating one aspect of the game – for example, passing or shooting from a static situation, a method used by many researchers [13]–could make it an execution of ''technique'' rather than ''skill'' per se. The skill aspect is where the player has a learned ability to select and perform the correct technique as determined by demands of the situation. The essence of this view is that the cognitive component, in the form of decision making, is a fundamental element of the skill [5].

Consequently, the more skilful the players, the quicker they are able to perform the skill test without compromising their ability to make accurate passes and control of the ball. The results of this study suggest that the more elite players were able to do this, thus highlighting the validity of the "Crossways Passing and Control Test (C-PCT). Based on the results of the Crossways Passing and Control Test performed on football games on FIK UNP students can be seen that most of the football games on FIK UNP students have Passing and Control are in the category of "average". One of the goals in doing the exercises is to improve the Passing and Control of football games on FIK UNP students. With good Passing and Control, players are able to perform motion duties and produce the perfect technique in the game of football.

5. CONCLUSION

It can be concluded, an instrument used in this research provides a measure the speed , the accuracy of , and success to do passing and control in a football game .To do the practical done from the analysis and control and observation keterampilangerak reliability test of passing the test was applied by means of repeated tests which was reported to the performance of passing skills in football players .Next , this test can distinguish a novice player with an eight-year veteran above average .So that , this tests have applications potential for researchers want to check the other factors as using high technology , so as to affect skill play especially.

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