



The Effect of Quickness Training Using Reaction Ball Media on Improving Futsal Goalkeeper Reaction

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Abstract

Futsal is played by 5 players, one of whom is a goalkeeper. Futsal goalkeepers really need reactions to anticipate the ball from entering the goal. The problem faced by goalkeepers is reaction and reflex in playing, and to improve the reaction, reaction ball media can be used as quickness training. This study aims to provide an understanding of the importance of futsal goalkeeper reactions in playing. Goalkeeper reaction training can provide significant benefits in improving physical performance. This study uses an experimental method and a quantitative approach with a one group pre-test-post-test design. The population used in this study were extracurricular goalkeepers of junior high school 23 Bandung aged 13-15 years and male. With a total of 10 goalkeepers of junior high school 23 Bandung, with a purposive sampling technique. The study used one test instrument, namely a test to measure the goalkeeper's reaction speed using a whole body reaction tool. The data was processed and analyzed using SPSS version 25. The results of the study showed that Quickness training using reaction ball media has an effect on improving futsal goalkeeper reactions. It can be concluded that to improve futsal goalkeeper reactions, one of which is using reaction ball media, of course with a structured program.

How to Cite

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INTRODUCTION

Futsal has developed as a relatively new sport since FIFA froze the rules and international competitions, namely the first World Championship was played in 1989, Rotterdam, Netherlands. Futsal is also considered a rapidly growing game sport in the world (Lopes et al., 2020), and became a popular team sport (Spyrou et al., 2020). Futsal is a sport played by 5 players, one of whom is a goalkeeper (Naser et al., 2017), who said that futsal goalkeepers really need to react in anticipation of the ball not going into the goal.

Furthermore, there is a relationship between reaction speed, agility, and self-confidence with anticipation of penalty kicks (Lestari et al., 2023). The Quickness method is expected to improve the reaction of the goalkeeper's hands (R, 2020). However, the training programs provided often create boredom and produce reactions that are not as expected. In the dynamics of futsal games, this is certainly the case in team sports, where the actions of one player are shown to influence the actions of his teammates and opponents, and vice versa (RA Tani et al., 2014).

In addition, the literature review shows Training with reaction ball media can improve the reaction and speed of a goalkeeper (Schwebel et al., 2016). Reaction time is one of the important supporting elements that need to be tested for measurement (Eckner et al., 2015), especially for goalkeepers who really need reactions (Fadi & Sutresna, 2019).

Where this media has not often been used by coaches because of the new equipment, and the modernity of this media makes the goalkeeper have a good reaction compared to futsal ball throwing and catching exercises that are not necessarily able to react as agilely as using reaction ball media (Osiobe et al., 2023). which is very much needed by a goalkeeper in blocking kicks towards the goal that are done from close range so that high reflex skills are needed (Rozi et al., 2023).

It is hoped that by practicing using the Reaction Ball media, the reaction speed of the futsal goalkeeper can be increased, because the Reaction Ball media is very helpful in the treatment that will be used later during the Reaction Ball media throwing and catching training program (Tanyeri & Öncen, 2020).

There is a knowledge gap about improving futsal goalkeeper reactions with quickness training, especially in Bandung city. In previous studies, we observed that most studies on

improving goalkeeper reactions with quickness training more often used tennis balls. Therefore This study is expected to provide deeper insight into how this training method can improve the quality of futsal goalkeeper performance, especially in terms of reaction speed and concentration during the match (Momesso et al., 2016).

Therefore, with the training by using Reaction Ball, a futsal goalkeeper is expected to be able to train his skills, especially reaction speed and concentration in catching the ball well, which can support the quality of the futsal goalkeeper. . With the renewal of media but with the research design will make different renewals and results (Wicaksono & Kusuma, 2021). Because it is played by throwing and catching it to the bottom of the futsal field, the media can train in Quickness Training using Reaction Ball is expected to be a solution to improve the reaction of futsal goalkeepers, this is because Reaction Ball is almost the same as a tennis ball but the quality of the reaction will be much different. The goalkeeper's reaction movement must always train agility in reaction and many goalkeepers have not implemented all of that because of the lack of knowledge and programs used so far (Naser et al., 2017). Does The Quickness training using a reaction ball have an effect on improving the reaction time of futsal goalkeepers.

METHOD

This study uses an experimental method, which is generally considered the most appropriate method for testing hypotheses. With a quantitative approach aims to test the theory by analyzing the relationship between research variables. And this study uses a One Group Posttest-Pretest design. The population used in this study were extracurricular goalkeepers of Smpn 23 Bandung aged 13-15 years old and male. With a total of 10 goalkeepers of of junior high school 23 Bandung, with a purposive sampling technique.

According to Rozi, the instrument states that research instruments must have the characteristics of clarity, clarity of purpose, clarity of filling instructions, clarity of presentation, and clarity of scoring. This clarity will ensure that the instrument can be used effectively by the respondent (Rozi et al., 2023). Thus, quantitative descriptive research must have good instrument quality with evidence from previous research that shows the validity and reliability of the instrument related to the procedures or provisions for using the

instrument to obtain accurate data.

In this study, the researcher used one test instrument, the first test was a test to measure the goalkeeper's reaction speed using a whole body reaction tool.



Figure 1.Who Body Reaction Test Tool

a) Tool

Whole Body Reaction, Stationery, Supervisor.

b) How to Use It

1. The operator gives a concentration warning signal;
2. The operator presses the button to turn on the Stimulus Unit. The Stimulus Unit will emit light, and the display will run;
3. Next, the Testee reacts by pressing the answer button according to the color of the light that is on, and at that moment the display will stop;
4. When using audio stimulation, if the operator presses the audio button, the stimulus unit makes a sound, then it will respond by pressing the answer button.

The test is carried out 3 times, record each test result, then take the best result for the final test result.

After the data has been successfully collected, the next step is to conduct data analysis. To facilitate the analysis process, the author uses a statistical calculation method by utilizing SPSS software version 25. The normality test was carried out using the Kolmogorov-Smirnov test which aims to test the hypothesis that the data is normally distributed or not (Fadluoh et al., 2024).

RESULTS AND DISCUSSION

The pretest obtained an average pre-test value of 2,846 while the post-test obtained a value of 2,493, Then the standard deviation of the pre-test was .0309 while the standard deviation of the post-test was .0394, the lowest pre-test value was

.246. While the post-test was .190, the highest pre-test value was .350, while the post-test was .328. And the N value of the pre-test was 10, then the N value of the post-test was 10.

Shapiro-Wilk Test to show the results of the data normality test. The pre-test statistical value is .939, df 10, and Sig. is .544. While in the post-test obtained a statistical value of .961, df 10, and Sig. of .793. Based on the test results, both data obtained a Sig. value > 0.05 , then both data are declared "Normally Distributed". Therefore, the author uses a parametric approach in making a hypothesis.

The results of the hypothesis test using Paired Sample t-Test. Table 3 shows the t-test value of 6.14, with a Sig. (2-tailed) value of 0.000. Based on the test results, the Sig. (2-tailed) value < 0.05 so that H_0 is rejected, it can be concluded that there is a significant influence on the ability to improve the reaction of the junior high school 23 Bandung futsal goalkeeper. a sig value > 0.05 , so it can be stated that the data is distributed homogeneously.

Based on the findings that have been described, there is a positive significance between the use of quickness training using reaction ball media on improving the reaction of futsal goalkeepers. This finding is in line with research conducted by (Wicaksono & Kusuma, 2021), where the goalkeeper has obstacles, namely the ability to react quickly and concentrate on catching the ball due to the lack of variation in training methods. After carrying out the quickness training program, there is a significant effect, namely that the futsal goalkeeper's reaction can increase.

This study is expected to provide deeper insight into how this training method can improve the quality of futsal goalkeeper performance, especially in terms of reaction speed and concentration during the match. Therefore, with the training using the Reaction Ball, a futsal goalkeeper is expected to be able to train skills, especially reaction speed and concentration in catching the ball well, which can support the quality of futsal goalkeepers. With the renewal of media but with the research design will make different updates and results.

In Quickness Training using Reaction Ball is expected to be a solution to improve futsal goalkeeper reaction, this is because Reaction Ball is almost the same as tennis ball but the quality of the reaction will be much different. The goalkeeper reaction movement must always train agility in reaction and many goalkeepers have not implemented it all because of the lack of knowledge

and programs used so far. This information can be useful for futsal coaches to develop more effective training programs. For further research, the scope of the sample should be expanded to include populations from diverse cultural and social perspectives and include a variety of sports.

CONCLUSION

Thus it can be concluded that the influence of quickness training using reaction ball media can improve the reaction ability of futsal goalkeepers, one of which is improving the reaction of of junior high school 23 Bandung goalkeepers. This shows that the role of intense training using reaction balls is effective in improving reaction ability. Thus, efforts to improve reaction ability using reaction balls can be a strategy to become more successful in futsal.

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