

E-Learning Program for Futsal Referee

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Abstract: This study aims to determine the effect of E-Learning and Non E-Learning Programs to improve performance of futsal referee in leading the game. Method: A total of 20 samples used in this study were selected through total sampling technique. Instrument in this research is format of performance assessment of FIFA futsal referee issued by FIFA assessor. Data processing techniques using SPSS version 20 with hypothesis testing using paired sample t test. Result: There is significant influence of e-learning and non e-learning programs on futsal referee performance. Discussion / Conclusion: This finding suggests choosing a program in learning to obtain maximum futsal referee performance when leading a match.

1 INTRODUCTION

In general E-Learning is a tool that can be utilized in the process of learning or training. E-Learning refers to learning delivered via electronic technology. It is undeniable that technological progress can be utilized as a learning tool and create a conducive environment in learning (Jabbier, Khadayakesh, 2014), (Safavi, 2008). We are as educators in the field of education should be smart in utilizing situations like this, the creativity of a teacher in facing technological progress is required to create a more effective and conducive learning atmosphere (Cantoni et al., 2004), (Khan, 2012). E-Learning itself has a loss, the loss of E-Learning is not everyone can use it, the expensive means of support in this learning program, needs its high responsibility for students to run this program.

How the results of research on this E-Learning program gives influence to the futsal referee in improving the performance of the referee (Jabbier; Khadayakesh, 2014) and also that in the world's top leagues are already implementing this program for coaching referees in order to improve the performance of referees while leading. The results of further research that the e-learning program that contains knowledge about the understanding of the rules of the game is certainly influential on the decision making performance of futsal referees when leading the game (Schweizer, Plessner, Kahlert, and Brand, 2011) (MacMahon, C., Helsen, WF, Starkes,

JL and Weston, M , 2007). Any action and decision taken by a referee is of course based on the rules of the game and every decision taken by a referee is assessed by the referee appraiser (Put, Wagemans, Jaspers, Helsen, 2013). From the results of these studies show that e-learning program gives influence to the performance improvement of the futsal referee in leading a match.

The purpose of this research is to know the influence of e-learning program in regards to controlling the rules of the game on the performance of futsal referee. This research is done only to the futsal referee who already has a level 2 license. Researchers take a sample level 2 because at this level has a lot of match intensity with a high level of difficulty. The difference of this study with previous research is in the research sample. In the previous study the sample was a faculty of sports students with a futsal referee level of beginner category, whereas in this study the sample used a futsal referee who has a level 2 license. In addition, the difference was found in the research program, in the previous research the case study was conducted through CD media without instructor guide, while in this research treatment is done with face to face and guided by instructor.

2 METHOD

2.1 Design dan Participants

This research uses futsal referees of Kota Bandung who have certificate of level 2 referee with amount of 20 people with the provision of 10 people for e-learning groups and 10 people for non-e-learning groups. All referees in this study had never before received both e-learning and non e-learning program.

2.2 Instrument

2.2.1 Form Assessment Referee Futsal FIFA from the Assessor Referee

With indicators are; 1) Signal and position is an important thing shown by a referee when leading the field, 2) Decisions in every event that took place during the game, 3) Understanding the rules of what has been decided when making a decision (FIFA, 2007).

2.3 Procedure

2.3.1 Data Collection

The process of collecting data in this study was through pre-test and post-test. The data were taken in the form of referee performance score in leading a real match. The assessment of the referee's performance in leading a match is made by a certified referee who is certified by PSSI and FIFA. Assessment is done using the referee's appraisal format during the match.

2.3.2 E-learning Class

This classroom is performed indoor which is facilitated by learning media such as computers and projectors. This class contains 10 futsal referees who have not previously experienced e-learning program in order to improve the understanding of futsal game rules. This class is 120 minutes per meeting and conducted during 12 meetings with the provisions of 4 meetings each week. Here's the structure in the e-learning class: 10 minutes for the introduction, 100 minutes for focusing on the subject of the video about the decision of the futsal referee, position, and signal. While the final 10 minutes are focused on the cover in which the focus is on feedback.

2.3.3 Non E-learning Class

This class contains 10 futsal referees and performed directly on the field in the actual game with 12 times the number of meetings with duration of 120 minutes. The structure in this class focuses on observing the various referees, signal, and position positions while leading a real match.

2.4 Data Analysis

The average value data analysis is calculated based on the performance of the referee in leading a match. There are pre-test, post-test, and different values of each study group. Data analysis for futsal referee performance using paired t test sample contained in SPSS 20 with alpha level set at 0.5.

3 RESULTS

The results data presented in Table 1. showed significant results in both samples of the study. In the e-learning group with the value of $t = 21$, $p = 0.05$, while in the non-e-learning group with the value $t = 15.057$, $p = 0.05$. From result of analysis of paired sample test with level 95% there are difference of result which signifikan to performance of futsal referee with value of $t = 5.757$, $p = 0$.

Table 1: Demography of participants.

	E-learning (Mean ± SD)	Non E-learning (Mean ± SD)
Pre-test of Referee Performance	6.05 ± 0.7; n = 10	6.05 ± 0.6; n = 10
Post-test of Referee Performance	7.8 ± 0.5; n = 10	7.05 ± 0.7; n = 10
Gain of Referee Performance	0 5 ± 0.4; n = 10	1 5 ± 0.2; n = 10

4 DISCUSSION

The results of this study indicate that there is influence e-learning learning program on the performance of futsal referee. With the E-Learning program referee can improve the accuracy in taking or deciding an event (Pizzera, Raab, 2012, 2014). In the match the referee must make decisions with

precise and accurate course so that the decision that the referee takes can be accepted by both teams that compete. Any decision that the referee takes must be held accountable in accordance with the rules contained in the rules of the game. What a difficult task of becoming a referee and leading a match.

With the delayed movement of course the referee will have the option before making a decision and this is done repeatedly until they really understand. The teacher's responsibility is to help the student to learn, and the best way for the success of the learner is to repeat it. As well as in this study the learning is done repeatedly.

This media is quite effective because it uses multimedia projector that has a large transmit range and combines all elements of media such as text, video, animation, images, graphics, sound, electronic systems into a single presentation in support of teaching and learning process (Rebello et al. 2014). In this case, it would be very supportive for all referees to learn more about the harmful movements of futsal players.

In this research process, the test is done 3 times, first pretest then midtest and the last is posttest. Midtest is conducted to know the extent of the influence of e-learning program to improve performance futsal referees. And after the researchers did the midtest it turns out there is an increase on the performance and it happens in all the sample research. However, although there has been an increase in research, it continues to know what changes will occur after the treatment is repeated.

As a referee we must have good cognitive ability to get good performance too. This research is intended for referees to think more thoroughly about performance because it involves a lot of things, that the referees should be superior to regulatory mastery, as well as physical conditions. Therefore, this research is conducted to support the performance of referees who must be superior.

Improvements to referee performance do not only occur during pretest to midtest, from midtest to posttest the referee performance increase occurs to all experimental samples. This is the impact of continued treatment after the researchers asked the entire sample that they felt more confident and understood the decisions they made in the lead after learning and replaying the events in the match video. In this study formed the impact of a learning process of the type of knowledge expected (Anderson et al., 2001).

The e-learning learning program makes it easy for referees to understand a game rule. In the e-learning program all explanations of a decision are shown in a video of the game and can be arranged in the display,

repeated several times or slowed. It is very easy to make a decision. Discussion with all referees is done in this program about the decision to be taken and it is contagious when leading a match referee can take the right decision in difficult situations (Schweizer, Plessner, Kahlert, and Brand, 2011).

The job of a referee is to lead the match as well as possible without anyone feeling disadvantaged by all the decisions he makes in a game. Of course it is not an easy thing to do. It takes concentration and focus on a game that will determine the performance in leading a match. The form of training or learning is facilitated by a game-based e-learning video learning program (Schweizer, Plessner, Kahlert, and Brand, 2011). The application of clips containing the case in a match actually proves to be very effective in improving the performance of the referee. This greatly helps the referee in taking a decision because it can set the mode of viewing the clip (spitz, Put, Wagemans, Helsen, 2014)

It is proven from a long time ago to the current e-learning program that is applied for futsal referees in terms of understanding in the application of game rules through the form of video matches provide the impact and experience of itself to improve the performance of futsal referee. And this program can be used as an alternative in developing and training futsal referees in terms of understanding the rules of the game.

From the statement, it is expected that the impact of the learning process is occurred. In this study the impact of e-learning program occurs to improve the performance of the referee in leading a match seen from the results of research conducted.

5 CONCLUSIONS

Based on the results of this study, the conclusion is how important it is to utilize a technological advancement and the development of the times for better and effective learning outcomes. In this case it is important for a referee to choose a way or program in understanding the rules of the game to improve performance in leading a match. Based on the results of research and conclusions that have been presented, the authors propose some recommendations in the hope that they can be beneficial to all interested parties.

REFERENCES

- Anderson, L. W., Krathwohl, D. R., Airasian, P., Cruikshank, K., Mayer, R., Pintrich, P., Raths, J., Wittrock, M., 2001. *A taxonomy for learning, teaching and assessing: A revision of Bloom's taxonomy*. New York. Longman Publishing.
- Cantoni, V., Cellario, M., Porta, M., 2004. Perspectives and challenges in e-learning: towards natural interaction paradigms. *Journal of Visual Languages and Computing*, 15(5), pp.333-345.
- Fédération Internationale de Football Association, 2007. FIFA Big Count 2006: 270 million people active in football.
- Jabbier, R. F. A., Khadayakhesh, M., 2014. The Effect Of Electronic Educational Program In Legal Knowledge And Refereeing Performances Arbitral For Futsal For Beginners. *Ovidius University Annals, Series Physical Education and Sport/Science, Movement and Health*, 14(2), pp.555-560.
- Kahn, B., 2012. A comprehensive e-learning model. *Journal of e-Learning and Knowledge Society*, 1(1).
- MacMahon, C., Helsen, W. F., Starkes, J. L., Weston, M., 2007. Decision-making skills and deliberate practice in elite association football referees. *Journal of Sports Sciences*, 25(1), pp.65-78.
- Pizzera, A., Raab, M., 2012. Does motor or visual experience enhance the detection of deceptive movements in football?. *International Journal of Sports Science and Coaching*, 7(2), pp.269-283.
- Pizzera, A., Raab, M., 2014. Can decisions by soccer referees be improved by technology?. In *BOOK OF ABSTRACTS* (p. 30).
- Put, K., Wagemans, J., Jaspers, A., Helsen, W.F., 2013. Web-based training improves on-field offside decision-making performance. *Psychology of Sport and Exercise*, 14(4), pp.577-585.
- Rebello, A. N., Ascensão, A. A., Magalhães, J. F., Bischoff, R., Bendiksen, M., Krustup, P., 2011. Elite futsal refereeing: activity profile and physiological demands. *The Journal of Strength and Conditioning Research*, 25(4), pp.980-987.
- Safavi, A. A., 2008. Developing countries and e-learning program development. *Journal of Global information technology management*, 11(3), pp.47-64.
- Schweizer, G., Plessner, H., Kahlert, D., Brand, R., 2011. A video-based training method for improving soccer referees' intuitive decision-making skills. *Journal of Applied Sport Psychology*, 23(4), pp.429-442.
- Spitz, J., Put, K., Wagemans, J., Helsen, W. F., The use of a web-based platform to measure the decision-making accuracy of additional assistant referees. In *BOOK OF ABSTRACTS* (p. 54).