



# PROCEEDINGS

## THE 1<sup>ST</sup> YOGYAKARTA INTERNATIONAL SEMINAR ON HEALTH, PHYSICAL EDUCATION, AND SPORTS SCIENCE.

*Evidence-Based Practice of Sports Science in Education, Performance, and Health.*

October 14<sup>th</sup>, 2017. Eastparc Yogyakarta, Indonesia



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SULTAN IDRIS EDUCATION UNIVERSITY

# YISHPESS PROCEEDINGS

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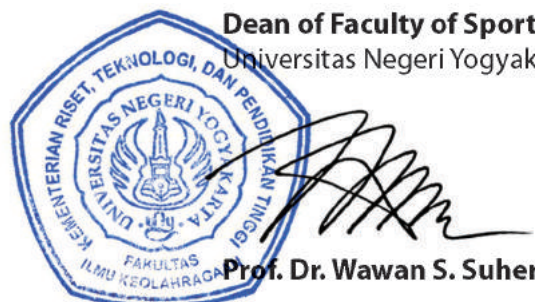
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## **OPENING SPEECH**

As the Dean of Faculty of Sport Sciences Universitas Negeri Yogyakarta, I would like to welcome and congratulate to all speakers and participants of the First Yogyakarta International Seminar on Health, Physical Education, and Sport Science (YISHPESS) 2017 entitled "Evidence-Based Practice of Sport Science in Education, Performance, and Health".

This international seminar is actually an implementation in the framework of the assessment of the achievements and sports culture in society that can support the achievements of the Indonesian people, so that there will be a significant role of practitioners, academicians, sport people, and sports observers from Universities, Institutions and Sports Organizations to help actively facilitate in the development, assessment of innovative sports science development so as to achieve sport achievements at the National and International level.

Finally, we thank all the committee of YISHPESS for their hard work in organizing this activity, and congratulate the invited speakers and all participants. Hopefully, this seminar is significant for the development of physical education, health, and sports sciences.

**Dean of Faculty of Sport Sciences,**  
Universitas Negeri Yogyakarta  
**Prof. Dr. Wawan S. Suherman, M.Ed.**



## **PREFACE**

*Alhamdulillahirobilalamin*, thank Allah the First Yogyakarta International Seminar on Health, Physical Education, and Sport Science (YISHPESS) has been prepared well and on time. With all humility, we welcome and congratulate the speakers and participants of Yogyakarta International Seminar on Health, Physical Education, and Sport Science (YISHPESS) organized by the Faculty of Sport Sciences, Universitas Negeri Yogyakarta.

The YISHPESS 2017 is designed to updating and applying evidence-based practice in sports science aspects, including: education, performance and health. We hope that the invited speakers of this seminar can reduce the gaps between academic and field to get best output in the daily sport and health practices.

We would like to thank to Rector and the board of Universitas Negeri Yogyakarta for supporting this seminar come true. Praise and be grateful to the Lord, so that this proceeding can be issued. Hopefully, the publication of this proceeding can bring benefits to the participants in particular and readers in general.

Yogyakarta, October 14<sup>th</sup>, 2017  
Chairperson of the Committee



**Dr. Or. Mansur, M.S.**

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## DIFFERENCES IN FUTSAL SKILL BETWEEN CLUB AND HIGH SCHOOL PLAYERS

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### Abstract

**Objectives:** The aim of this study was to determine differences in futsal skills between club and high school players. Subjects were 110 futsal players from club competitions (n=62) and high school competition (n=48).

**Methods:** Futsal skill was measured according to the instructions of the Futsal Skill Test–FST. The FST requires players to pass, receive, dribble, and shoot the ball as quickly as possible whilst making the fewest mistakes. Participants completed two main trials on the same day. Independent samples t-test were used to examine possible differences between groups ( $p < .05$ ).

**Results:** The performance time in club players ( $68.702 \pm 11.16$  s) was 10.2% significantly faster ( $p < .05$ ) than in high school players ( $76.513 \pm 9.90$  s) and the taken time in club players ( $57.897 \pm 9.17$  s) was 11.6% significantly faster ( $p < .05$ ) than in high school players ( $65.491 \pm 7.92$  s).

### Conclusion

In conclusion, the club and high school futsal players differ in the agility, but not in the accurate as futsal skill.

**Keywords:** futsal skills, club and high school players.

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## INTRODUCTION

Futsal is a recent ball team sport with a significant increase in popularity over last years. In this decade, futsal became one of the most attractive team's sports. The fundamental principle of futsal is to score more goals than the opposing team. Futsal players cooperate with team member in pursuit of common aims, the principal ones being to score goals for the team when in possession of the ball, and to prevent goals being scored against the team when the opposing players have the ball (Travassos, et al., 2011: 1247).

The team sport differs from individual sports in that there is no definitive index of each player's performance. Talent identification is more complex process in team sports than in individual sports (Serrano et al., 2014). The coach may consider that the individual played well if he/she has contributed to executing the overall game plan (Reilly, 2007). Futsal is a team sport, so it takes the performance of each player to be able to support the team's performance. Performance players have a minimum standard that must be mastered. Every player must have the futsal skills as an indicator the futsal team player. It would appear that skillful performances are crucial to winning futsal matches.

Futsal has incredibly fast passing, and is the epitome of a team sport that still allows room for individual demonstrations of skill, tricks and feints that are relished by players and spectators like (Herman and Engler, 2011). Skill was more than technique. The skill aspect is the where the player has a learnt ability to select and perform the correct technique as determined by demands of the situation (Williams et al., 2007). A futsal player might have good patterns of movement but if he/she does not perform the right action at the right time then he/she becomes an almost useless player. The fundamentals of futsal game were controlling, driving, and shooting the ball. Futsal players must be able to demonstrate techniques of controlling, passing, dribbling, and shooting as the circuit is limited by space and time. A farther aid to the coach attempts to get to know the need of the players is by using tests (Worthington, 1984). The Futsal Skill Test-FST have been shown to be valid and reliable methods of assessing futsal skill performance (Agus, 2014).

The aim of this study was to examine mastery skill in futsal players of different competition, between club and high school players. Information regarding the mastery skills of futsal players, in



turn, may be of interest for the development of training protocols and for talent selection. It was hypothesized that mastery skills was a competitive level dependent factor in futsal.

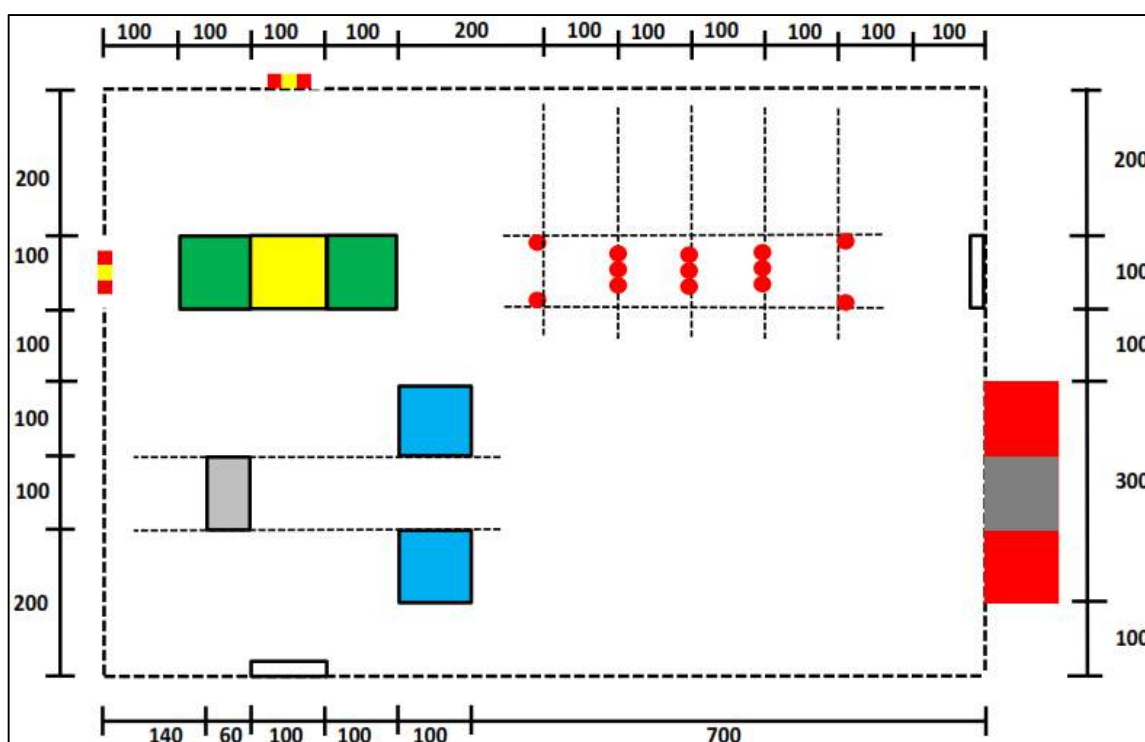
## METHODS

### Subjects

Sixty two futsal club players from Yogyakarta Futsal League and 48 high school players from School Championship players volunteered for this study. The club players from 4 clubs, which is prepared to compete on Yogyakarta Futsal League. The high school players from 4 high schools, which is prepared to compete on PAF Region Yogyakarta. The participants were from a range of outfield playing positions and were involved in regular training and match-play.

### The Futsal Skill Test

**Fig 1** illustrates the layout of the FST. Test area needed free space 800 x 1200 cm. Prior to placement, two wooden rebound boards (100 x 40 cm) as passing target, a goal (200 x 300 cm), three passing areas (100 x 100 cm), two shooting areas (100 x 100 cm), a place for six balls (100 x 60 cm), two dribbling pivot areas (100 x 20 cm), and 13 cones (diameter 20 cm). Before their placement, five colored passing target areas (white, red, yellow, red, and white; 40 x 20 cm) were taped each rebound board. Shooting target area (dark; 100 x 200 cm) was hanged on the middle of the goal.



**Fig. 1** Diagrammatic representation of the FST in centimeter.

Participant started with the futsal ball by the centre passing area (yellow rectangle). The first perform; the participant was doing sequence of passes six times to the coloured target, and the first examiner started timing the test, using a hand-held stopwatch, from the moment the ball was passed at the first time. The second perform; the participant was strike dribbling to the pivot area, than dribbled back to the centre passing area again. The third perform; the participant was required sequence passes six times to the two coloured target by turns. The fourth perform; the participant was required dribbling zigzag to the other pivot area. The fifth perform; the participant are required sequence passes six times to the coloured target at the two passing area (green rectangle) by turns. The final perform; the participant was required shooting into the net (goal) three times, two times with dominant leg and one with the other leg, at the two shooting areas (blue rectangle). If three balls had shot into the net two times with dominant leg and one time with the other leg, the shooting has been completed. But if it has not been able to shoot the three balls was given a chance

up to seven balls. If seven balls have not been able into the net, the shooting has been also completed.

The first examiner started timing the test when the participant was kicked the ball and stopped timing test to the shooting has been completed. The second examiner was to record penalty time points accrued during trials. Penalty time was awarded for the following errors. Three second for handling the ball. Shooting errors are two second for missing goal, one second for hitting the bar and shooting out if the designated area, and a half second for hitting the middle target. Dribbling error is one second for touching the cone and pivot out of the designated area. Passing and receiving errors are one second for receiving and passing out the designated area and hitting the white target area, and a half second for hitting the red target area.

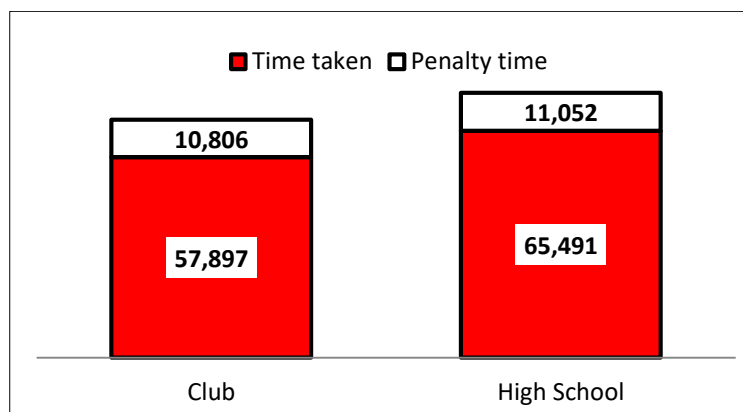
Furthermore, the players were informed that for best performance on the FST they would have to perform the test as quickly as possible whilst making the fewest mistakes. Score test such as time taken and penalty time in performing a series of tasks. Penalty manifested in a sentence with the addition of time, according to the mistakes made. So the total test score (performance time) is derived from the sum of the time that execution time and penalty time. The score test was the best score of the two trials.

**Procedure**

The participants completed two mail trials, at the one day. Participants are given the opportunity to try out the protocol of futsal skills test before recording the data. While between the two trials, participants did not have a chance to practice. A 15-minutes standardized warm-up, consisting of jogging, striding, sprinting, and stretching exercises, preceded the trials.

**Data analysis**

Data reported as mean standard deviation. Kolmogorov Smirnov test and Levene test were used to test if data were normally distributed and equality of variance. Independent samples t-test were used to examine possible differences between groups. Significance was assumed at 5% ( $p < 0.05$ ) a priori. The statistical Package for IBM SPSS Statistics 21 was used for the statistical analysis.



**Fig.2** FST performance time (s) between club and high school futsal player

**RESULTS**

A summary of the FST performance score for club and high school futsal players is presented in **Table 1**. The actual performance time comprises two variables: the time taken to complete the FST and the penalty time for poor control or inaccurate passing, receiving, dribbling, and shooting. **Fig.2** shows the contribution of these two variables that make up the total performance time. The performance time in club players ( $68.702 \pm 11.16$  s) was 10.2% significantly faster ( $p < .05$ ) than in high school players ( $76.513 \pm 9.90$  s). The taken time in club players ( $57.897 \pm 9.17$  s) was 11.6% significantly faster ( $p < .05$ ) than in high school players ( $65.491 \pm 7.92$  s). The penalty time in club players ( $68.702 \pm 11.16$  s) was 2.2% no significantly faster ( $p > .05$ ) than in high school players ( $76.513 \pm 9.90$  s). Club players presented better result than high school players, indicating that club futsal players have better agility than high school futsal players.

**Table 1.** Mean ( $\pm$ sd) futsal skill, t-value (t), and significant (p) between groups

Variable	Group players		t	p
	Senior	Junior		
Time taken	57.897 ( $\pm$ 9.17)	65.491 ( $\pm$ 7.92)	-4.558 *	.000
Penalty time	10.806 ( $\pm$ 3.85)	11.052( $\pm$ 3.34)	- .351	.726
Performance time	68.702 ( $\pm$ 11.16)	76.513 ( $\pm$ 9.90)	-3.822 *	.000

\* Show significant difference ( $p < .05$ ) between senior and junior players.

## DISCUSSION

The steps in learning skill were; understanding, practice and performance (Schemp, 2003). At performance's stage, the skill is executed in a match or activity. When executing the skill, players should focus on the purpose of the activity and not the process. When a skill is being performed conscious thought is replaced by automaticity. Knapp suggested that skill is also synonymous with the minimum outlay of time and energy (Benevenuti, 2014). Consequently, the more skillful players, they are quicker able to perform the skill test without compromising their ability to make accurate passes, smooth receives, dribbles and shoots the ball. More mastery players are more automaticity, making it quicker and more accurate to adapt the situation. Club players are better in futsal skills than high school players.

The high school players can be called as junior players, while the club players as senior players. The senior players have a physical component that is more leverage than junior players. International and professional players have better anthropometry and physical fitness than amateurs players in soccer (Gall Te all., 2010). Playing skills, the use of the technique in the circumstances of play, supported by the physical component owned. Players can perform zigzag dribbling quickly when it has the agility, can perform passing firmly (hard and directed) if it has the leg strength and a good foot eye coordination. Departing from the different physical components, due to aging, the club players have the skills to play futsal better than high school players.

Highly skilled players produced significantly faster movement times and decision times than less skilled players (Young and Willey, 2010). The player with the higher level of skill required to choose the right technique is common. Thus high-skilled players who struggle effectively and efficiently in determining and performing motion techniques tailored to the conditions and situations. Players from clubs are quicker and precise in decision making and execution of futsal playing skills. It should be like any other invasion game. The high-speed actions performance during an invasion game as futsal can be categorized as requiring straight sprint components and agility (Hughes and Bartlett, 2002). The futsal game requires quick and fast in moving and acting.

The futsal playing skills are estimated from the execution time and the penalty time in demonstrating the sequence of motion series of futsal playing skills. Futsal skill players is significantly better than high school players for the execution time, while the penalty time is not significantly different. The average difference of club and high school players for penalty time .24 seconds. Thus, at the penalty time club players no significantly difference than the high school players. More power is less accuracy, less power is more accuracy (Worthington, 1984). The ball execution skill is a blend of power and accuracy, when it is linked to the difference between club and extracurricular players, so club players have better power than high school players but the accuracy is no significantly different. If based on their age, senior and junior group, then senior players have more trained power than juniors. The senior players have been allowed temporary weight training junior players are advised to use the load (the body itself), so they have a better power.

Agility plays as important role in creative futsal skills (Worthington, 1984). The futsal playing skills of club players better than high school palyers affected by the agility difference. Agility is the ability to change velocity and direction of body rapidly in response to a stimulus (Hossein et al., 2014). Agility is defined as the combination of strength, speed, balance, and coordination (Drust and Gregson, 2013). Based on some aspects of biomotor that affect agility, so it needs to be explored

more deeply about it. If their biomotor aspects are no different, then it is certain their mastery of techniques is different. But if the biomotor club players is better than the high school players, then the difference is in the biomotor aspect rather than the mastery of the technique. Skills are technical executions combined with biomotor capabilities based on environmental conditions and situations.

## CONCLUSION

Based on our results, we can conclude that the senior and junior futsal players differ in the agility, but not in the accurate as futsal skill. Speed is a very important component of futsal and it represents a common characteristic. Based on that fact it can be said that the players in this two levels are very difference in futsal skill performance.

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