

Original Article

Contribution of Kinesthetic Intelligence and Motor Ability to Futsal Playing Skills

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Abstract

Introduction: Kinesthetic intelligence is the ability to move the body obtained by stimulation so that it can create practical and efficient movements in processing an object or creating, changing a form of exercise; experts reinforce this. **Purpose:** This study aims to find information about the contribution of Kinesthetic Intelligence and Futsal Playing Skills in the Futsal Student Activity Unit. The author is interested in researching this because, in the futsal game, these two things are closely related. **Methods:** This type of research is descriptive quantitative. The population of this research is the Student Activity Unit for Men's Futsal Players at the University of Siliwangi, totaling 60 Sampling Techniques using Purposive Sampling. Measurement of Kinesthetic Intelligence Using Questionnaires, Measurement of Motor Ability Using Barrow Motor Ability, and Measurement of Futsal Playing Skills Using Games Performance Assessment Indicator. Based on data processing using statistical tests, it turns out that empirically there is a contribution between Kinesthetic Intelligence and Motor Ability together with the results of futsal playing skills of the Student Activity Unit (Unit Kegiatan Mahasiswa/UKM) Male Futsal Players at Universitas siliwangi. **Results:** The hypothesis results are accepted and included in the High category; the contribution of kinesthetic intelligence skills to playing futsal is 2.89%, the gift of the motor ability to playing skills to futsal is 77.44%, and the contribution of kinesthetic intelligence and motor ability together is 77%. **Conclusions:** In this case, the contribution of motor ability provides a higher carrying capacity than kinesthetic intelligence. The results of the research that the authors get, therefore the authors suggest that every futsal coach trains together programmed, systematically, and regularly to improve kinesthetic intelligence and motor abilities to be more effective and efficient.

KeyWords: *Futsal, Kinesthetic Intelligence, Motor Ability, Playing Futsal Skill*

Introduction

Sport has been a person's need from ancient times until now; exercise is a human endeavor to continue to survive because by exercising, our body will stay awake and can increase the body's immune so that it is farthest from disease. In the era of society 5.0 now, there are many kinds of sports, starting from sports on land, water, and air, both outdoor and indoor.

Futsal is an abbreviation of (futbol) soccer and (sala) room, and futsal was first introduced by a football coach from Uruguay named Juan Carlos Ceriani in 1930. emerged after FIFA gave official recognition in 1989 when the futsal world championship began to be held,

Because futsal is a development of football, the way of playing is almost the same. Still, in futsal, it relies more on foot-to-foot cooperation through passes to take advantage of small fields so that a fast decision level is needed so that the opponent does not snatch the ball; according to Lhaksana Justinus (2012), "Futsal is a high-speed and dynamic game, in terms of a relatively small field, there is almost no room for error" (p. 7). Therefore, many factors can support good futsal skills, two of which are kinesthetic intelligence and motor ability. one of them is kinesthetic intelligence, which significantly contributes to futsal skills.

Kinesthetic intelligence is the ability to move the body obtained by stimulation so that it can create

practical and efficient movements in processing an object or creating, changing a form of exercise; experts reinforce this; Armstrong (2002) argues that "kinesthetic intelligence or physical intelligence is an intelligence where when using it a person is able or skilled to use his limbs to perform movements such as running, dancing, building things, doing artistic activities, and works of art" (p. 3).

Motor ability is a person's general movement ability which is the basis for carrying out other movements; the better the movement ability, the easier it is to learn different activities. In addition, motor ability or motor ability is a supporting factor for the implementation of other skills that distinguish individual abilities, so motor ability itself can also be understood as a limiting factor in the appearance of one's motion; according to Kiram Yanuar (2019), "motor is a latent event that includes the entire process of the process of controlling and regulating the functions of the body's organs, both physiologically and psychologically, which causes movement" (p. 11).

Futsal playing skills are skills where a player can master essential techniques, have good technical understanding, and have a strong mentality so that it can be said that the player has futsal playing skills. Researchers are interested in researching and knowing how significant the contribution between kinesthetic intelligence and motor ability is to skills. playing futsal for members of the Men's Futsal UKM, Universitas siliwangi.

Material & methods

The research method used in this research is a descriptive research method using a correlational approach. According to Sukardi (2007), "the purpose of descriptive research is to systematically describe the facts and characteristics of the object or subject being studied appropriately, while the correlational analysis technique is a statistical analysis technique regarding the relationship between two or more variables." (p. 157)

A study always uses research variables. Definition of variables according to Sugiyono (2013), "Research variables are everything in any form determined by the researcher to be studied so that information is obtained about it, then conclusions are drawn" (p. 60). Independent variable (X) : Independent variable 1 (X1) : contribution to kinesthetic intelligence, Independent variable 2 (X2) : contribution to motor ability, dependent variable (Y) : playing futsal skills

Participants

The population in this study was 60 futsal athletes from the Student Activity Unit of the University of Siliwangi Putra. According to Zaenul Fitri Agus and Haryanti Nik (2020), "population is a generalization area consisting of objects and subjects that have certain quantities and characteristics determined by researchers to be studied and then a conclusion is drawn." (p. 102). Because the sample is part of the population, according to Zaenul Fitri Agus and Haryanti Nik quoted from Suharsimi Arikunto (2020), "the sample is part of the population" (p.103). The sampling technique used in this research is purposive sampling, which is part of non-probability sampling. According to Sugiyono (2014), "purposive sampling is a sampling technique with certain considerations" (p.124). The author uses this sampling technique because the object studied is related to futsal playing skills who have good futsal playing skills. The subjects used as samples are members of the Men's Futsal Student Activity Unit (UKM) of Universitas siliwangi because they have the best basic skills among the other 20 members.

Instruments

The research instrument is a measuring tool for the sample to be studied to produce information data or numbers for later processing. The device used in this study was to obtain information about kinesthetic intelligence with a motor ability questionnaire with a borrow motor ability and futsal skills with a Game Performance Assessment Instrument (GPAI).

According to Fenalampir Albertus and Muhammad Muhyi Faruq (2015), "To measure the Motor Ability for students, the Barrow Motor Ability test is used" (pp. 47-51). Purpose: to make classification, guidance, and achievement determination. Level: male student, male high school student, and a male junior high school student. Equipment or tools: mat, measuring tape, softball, stopwatch, basketball, stick, and test form for the types of tests are as follows:

- a) Standing Board Jump Measurement
- b) Soft Ball Throw
- c) Zig Zag Run / Envelope Run

- d) Wall Pass Measurement
- e) Medicine Ball-Put
- f) Run a 600-yard dash

The overall scoring method (battery) uses the general motor ability scoring (G.M.A.S) formula, namely: Overall score = 2.2 (standing board jump) + 1.6 (soft ball throw) + 1.6 (Zigzag Run) + 1.3 (Wall Pass) + 1.2 (Medicine Ball-Put) + 60 yard dash. Playing skills assessment of playing skills requires careful observation during the game. Griffin, Mitchell, and Oslin Hoedaya (2001) have created an assessment instrument called the Game Performance Assessment Instrument (GPAI).

According to Sugiyono (2018), "to measure kinesthetic intelligence, a Likert scale assessment is used, to measure attitudes, opinions, perceptions of a person or group of people about social phenomena" (p. 93).

Table 1. Skala Likert

Alternative Answer	Value	
	(+)	(-)
Strongly Agree (SA)	5	1
Agree (A)	4	2
Doubtful (D)	3	3
Less Agree (LA)	2	4
Disagree (DA)	1	5

Source : Arikunto (2006), p. 130)

Results

Tabel 2. Calculation Results of the Mean and Standard Deviation of Each Test

No	Test Items	mean	Standard Deviation
1	Kinesthetic Intelligence	93.6	4.55
2	<i>Motor Ability</i>	6859.10	798.52
3	Futsal Playing Skills	6.50	0.50

Based on the interpretation table of correlation values above, it can be seen that kinesthetic intelligence has an insignificant contribution to the results of futsal playing skills, where the correlation value is 0.17 and is included in the fragile category. On the other hand, there is a significant contribution between motor ability and playing skills results, with a correlation value of 0.88, and is included in the muscular type. In contrast, kinesthetic intelligence and motor ability have an insignificant correlation, with a correlation value of 0.20, and are included in the low category.

Tabel 3. Correlation Calculation Results of the Three Test Items

No	Test Items	Value R	Category	t _{count}	f _{count}	Results
1	Kinesthetic Intelligence (X1) with Futsal Playing Skills (Y)	0.17	Very weak	0.73	2.10	Not significant
2	<i>Motor Ability(X2) with Futsal Playing Skills (Y)</i>	0.88	Strength	7.77	2.10	significant

Discussion

Based on the results of data processing and analysis of research results obtained through measurements

of kinesthetic intelligence and motor ability on futsal playing skills, the authors can conclude as follows.

- 1) A kinesthetic intelligence contribution of 2.89% to futsal playing skills in the Men's Futsal Student Activity Unit (UKM) at Universitas siliwangi.
- 2) There is a motor ability contribution of 77.44% to the results of futsal playing skills in the Men's Futsal Student Activity Unit (UKM) at Universitas siliwangi.
- 3) There is a joint contribution of kinesthetic intelligence and motor ability of 77% to the results of futsal playing skills at the Men's Futsal Student Activity Unit (UKM) at Universitas siliwangi. Still, Motor Ability contributes more to the effects of futsal playing skills.

Based on the research results that the authors got, the authors suggest that every futsal coach train together in a programmed, systematic, and regular manner to improve kinesthetic intelligence and motor abilities to be more effective and efficient. Planning for strengthening character education is integrated with learning planning for physical education in sports and health. The objectives of character education values are listed in core competence one and core competence 2. However, the learning implementation program does not detail planning steps for strengthening character education.

Conclusions

Furthermore, to find out which of the two test items contributed the most to the results of futsal playing skills, the authors carried out data processing and analysis using the multiple correlation formula. From the three test items, it can be concluded that Kinesthetic Intelligence and Motor Ability strongly contribute to Futsal Playing Skills.

Conflicts of interest . The authors have no conflicts of interest with the content of this review.

References:

- Akbar, Aldiansyah. (2015). Kontribusi Kecerdasan Kinestetik, Motor Ability dan Motivasi Dengan Keterampilan Bola Basket. *Jurnal Sport Pedagogy*, 5, 1-5. Doi:7310-15902-1
- Amstrong, T. (2002). Kecerdasan Multipel di Dalam kelas Edisi Revisi. Jakarta: Permata Puri Media.
- Amung, Ma'mun dan Yudha M Saputra. (2000). Perkembangan Gerak Belajar Gerak. Departemen Pendidikan dan Kebudayaan.
- Anne, Ahira. (2012). Terminologi Kosa Kata, Jakarta: Aksara,
- Arikunto, Suharsimi. (2006). Prosedur Penelitian Suatu Pendekatan Praktek. Jakarta : Rineka Cipta.
- Darniyati Ria, dkk (2018). Sistem Pendukung Keputusan Seleksi Pemain Pada Cabang Olahraga Futsal Dengan Metode Profile Matching. Magelang. *Jurnal Komtika*. ISSN 2580-734X.
- Fenalampir, Albertus dan Muhammad Muhyi Faruq. (2015). Tes dan Pengukuran Olahraga. Yogyakarta: CV ANDI OFFSET.
- Firmansyah, Guntur dan Ervin Dwi Rahayu. (2016). Analisis Keterampilan Bermain Futsal Peserta Ekstakulikuler Futsal Putra di SMP Negeri 21 Malang. *Bravo's Jurnal*, 4, 1-7. Doi:2337-7674
- Hendrayana, Y. (2003). Pembelajaran Permainan Dasar. Departemen Pendidikan Nasional Direktorat Jendral Pendidikan Dasar dan Mencegah Direktorat Pendidikan Luar Biasa.
- Irwansyah, Dodi. (2015). Hubungan Kecerdasan Kinestetik dan Interpersonal Serta Interpersonal Dengan Hasil Belajar Pendidikan Jasmani di MTSN Kuta Baro Aceh Besar. *Jurnal Administrasi Pendidikan*.3, 1-16. Doi:2302-0156
- Kiram, yanuar. (2019). Belajar Keterampilan Motorik. Jakarta: Prenamedia Group.
- Komarudin. (2013). Psikologi Olahraga Latihan Mental Dalam Olahraga Kompetitif. Bandung : PT. Remaja Rosadakarya Offset
- Lhaksana, Justinus. (2012). Taktik dan Strategi Futsal Modern. Jakarta: Be Champion.
- Narlan, Abdul (2015). Statistika Dalam Penjas. Sleman: CV Budi Utama.
- Primasoni, Nawan. (2011). Survei kemampuan Motorik Pemain Sekolah Sepakbola Selabora. *Jurnal Olahraga Prestasi*.7(01). RetrivedFrom <https://media.neliti.com/media/publications/116254-ID-survai-kemampuan-motorik-pemain-sekolah.pdf>
- Rahmatunisa, Sriyanti dan Siti Halimah. (2018). Upaya Meningkatkan Kecerdasan Anak Usia 4-5 Tahun Melalui Bermain Pasir. *Jurnal Pendidikan Anak Usia Dini*.71. RetrivedFrom [filehttps://jurnal.umj.ac.id/index.php/YaaBunayya/article/download/2813/2219](https://jurnal.umj.ac.id/index.php/YaaBunayya/article/download/2813/2219).
- Rinaldi, Muhamad dan Muhamad Syawal Rohaedi. 2020. Buku Jago Futsal Cet 1. Tangerang Selatan: Cemerlang.

- Rusli, Lutan. 2000. Belajar Keterampilan Motorik. Pengantar Teori dan Metode. Jakarta: Departemen Pendidikan dan Kebudayaan Direktorat Jendral Pendidikan Tinggi Proyek Pengembangan Lembaga Pendidikan Tenaga Kependidikan.
- Sugiyono, (2013). Metode Penelitian Kuantitatif Kualitatif dan R & D. Bandung: Alfabeta
- Sukardi, (2007). Metodeologi Penelitian Pendidikan. Jakarta: Bumi Aksara.
- Suyadi, (2010). Psikologi Belajar PAUD. Yogyakarta: PT. Pustaka Insan Madani.
- Syamsul, Taufik Muhamad. (2019). Hubungan Tingkat Konsentrasi Dengan Keterampilan Bermain Futsal Unit Kegiatan Mahasiswa Futsal Universitas Surya Kencana. Jurnal Ilmu Keolahragaan 10(02) 2019, 68-78. Doi:10.21009/GJIK.102.01
- Teguh, Raharjo Andreas. (2010). Hubungan Antara Multiple Intelligience Dengan Prestasi belajar Siswa kelas XI di SMA Negeri 10 Malang. Jurnal Psikologi. 5(02)311-322. RetrivedFrom
- Zaenul, Fitri Agus dan Nik Haryanti. (2020). Metodologi Penelitian Pendidikan. Malang: Madani Media.