

Basic Football Skill Instruments for Indonesian Junior Players

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ABSTRAK

Instrumen keterampilan sepak bola diperlukan oleh pelatih atau praktisi sepak bola untuk mengidentifikasi bakat dan mengevaluasi proses latihan setiap pemain. Saat ini instrumen keterampilan sepak bola sudah banyak jenisnya, namun instrumen yang sesuai dengan karakteristik pemain Indonesia dan Kurikulum Pembinaan Sepak Bola Indonesia (Filanesia) belum tersedia. Tujuan penelitian ini adalah menganalisis pengembangan instrumen keterampilan sepak bola yang sesuai untuk Filanesia guna memperoleh informasi kebutuhan, urgensi, manfaat, dan rancangan model instrumen tersebut. Pendekatan penelitian ini menggunakan metode campuran yaitu kuantitatif dan kualitatif. Sebanyak 30 responden dilibatkan dalam penelitian ini, terdiri dari 25 orang pelatih sepak bola dan 5 orang dosen ahli di bidang sepak bola. Pengumpulan data dilakukan dengan menggunakan kuesioner yang disebar melalui g-form dan melalui kegiatan Focus Group Discussion (FGD). Hasil kuesioner dianalisis menggunakan statistik deskriptif kuantitatif. Selain analisis tersebut, triangulasi data juga digunakan untuk menganalisis hasil wawancara dan diskusi selama FGD. Hasil penelitian ini menunjukkan bahwa instrumen keterampilan sepak bola sangat bermanfaat bagi pelatih dan pemain, dan urgensi pengembangan model instrumen keterampilan sepak bola berbasis Filanesia sangat tinggi. Dengan demikian, rancangan model instrumen telah dihasilkan untuk dua tingkat kelompok umur (10–12 tahun dan 13–16 tahun). Tentunya hal ini menjadi peluang untuk dilakukan penelitian lebih lanjut yaitu melakukan validasi terhadap kedua rancangan model tersebut dan mengukur reliabilitasnya agar kedua model uji tersebut dapat digunakan oleh pelatih sekolah sepak bola.

ABSTRACT

Football skills instruments are needed by football coaches or practitioners to identify talents and evaluate the training process of each player. Currently, there are many types of football skill instruments, but instruments that are in accordance with the characteristics of Indonesian players and the Indonesian Football Development Curriculum (Filanesia) are not yet available. The purpose of this study was to analyze the development of football skills instruments that are suitable for Filanesia in order to obtain information on the needs, urgency, benefits, and draft models of these instruments. This research approach uses mixed methods, namely quantitative and qualitative. A total of 30 respondents were involved in this study, consisting of 25 football coaches and 5 expert lecturers in the field of football. Data was collected using questionnaires distributed through g-forms and through Focus Group Discussion (FGD) activities. Questionnaire results were analyzed using quantitative descriptive statistics. Apart from this analysis, data triangulation was used to analyse the result of the interviews and discussions during FGD. The results of this study indicate that a football skill instrument is very useful for coaches and players, and the urgency of developing a Filanesia-based football skill instrument model is very high. Thus, a draft instrument model has been produced for two levels of age groups (10–12 years and 13–16 years). Of course, this is an opportunity for further research, namely to validate the two draft models and measure their reliability so that the two test models can be used by football school coaches.

1. INTRODUCTION

Coaching is one of the keys to achieving regular sports achievements. The coaching in question is carrying out the process of searching for and monitoring talent, nursery, sports education, and training based on science and technology, starting at the regional to central level (Leeder & Sawiuk, 2021; Post et

al., 2020; Yusfi et al., 2019). The purpose of fostering sports achievement is to identify the talents of prospective athletes and prepare young athletes to achieve peak performance (Irmansyah, 2017; Syaifullah & Doewes, 2020). The progress of a coaching process can be identified through an evaluation stage. Evaluation is a stage consisting of exploration or data collection, assessment, and decision-making (Mashuri, 2019; Till & Baker, 2020). In order to make the right decisions, valid, reliable, and objective sports tests and measurements are needed for evaluating athlete performance, which are then used as the basis for providing training programs (Gumantan et al., 2021; Scharfen & Memmert, 2019). Football is a sport that, until now, has not had achievements like badminton, but football has always been a favourite for all Indonesians (Ahmad et al., 2023; Ferrari, 2019; Sudiana et al., 2023). It has the characteristics of a very dynamic game (González-Rodenas et al., 2019, 2020; Womsiwor et al., 2020), so anyone who plays it is guided to prepare maximum motor skills as well (Bujnovsky et al., 2019; Turna & Alp, 2020). In addition to the physical elements, the ability to master the basic techniques of football is very important for every player in any position (Jukic et al., 2019; Yani & Fransazeli, 2023). The basic techniques referred to consist of passing, dribbling (including running with the ball), first touch, heading, and shooting (Kusuma et al., 2022; Villarreal et al., 2015). Based on this, football is one of the twenty sports included in the National Sports Grand Design program.

In fact, in 2017, the Football Association of Indonesia (PSSI), through the PSSI High Performance Unit, produced an Indonesian Football Development Curriculum that is in accordance with the identity or character of the Indonesian Nation, which is named Filanesia. There are four phases in football coaching: the excitement phase of football at the age range of 6–9 years, the development phase of football skills at the age range of 10–13 years, the development phase of playing football at the age range of 14–17 years, and the performance phase at the age of 18 years and over (Danurwinda et al., 2017; Nento, M., Sulaiman, S., & Hartono, 2023). At Filanesia, the players get material such as the actions needed when carrying out attacking moments, including passing, first touch, dribbling, shooting, and heading. Like other sports, to measure the basic skills or techniques of playing football, specific instruments are needed. The basic techniques are all the actions that underlie someone's ability to play football (Kusuma et al., 2022). Although previously study created and used models of football skills tests such as the Loughborough Soccer Passing Test (Le Moal et al., 2014; Wen et al., 2018) and Loughborough Soccer Shooting Test (Filipas et al., 2021), David Lee Test (Marzuki & Sukoco, 2019), however, the test was piloted by Indonesian junior players. Another finding is a partial (not yet holistic) football skill test model such as the passing skills test developed by Nurhasan (Santoso, 2014), web-based Soccer Skill Test (Supriyono, 2018), as well as a test model developed as a basis for determining talent scouting aged 10–11 years (Lubis et al., 2020). Meanwhile, to measure the progress of the achievements of Indonesian junior football players who practice with Filanesia guidelines that have not yet been found.

So the current urgency is that skill instruments are needed that are appropriate to the age level of Filanesia. In general, the category of junior athletes is those in the age range of 10–15 who have participated in competitions or championships (Dharmadi et al., 2021; Robles-Palazón et al., 2022). In addition, the test model is also not partial to the basic technical components because the test model must also resemble the actual match situation. The intended match situation is the player performing actions in football both with and without the ball in one circulation or in the form of a continuous circuit. This means that the types of basic football skill instruments that exist today are still partial and are not yet in line with age clustering in Filanesia.

The presence of an instrument model that can measure skills in playing football in accordance with the development of Indonesian players will certainly be able to help coaches at football schools see the development or results of the training each player has undergone. So the solution to solving the problem above is to develop an instrument model that begins with gathering information, needs in the field, and literacy from various sources as a basis for preparing an effective and efficient instrument model. Based on the above, the purpose of this study was to analyze the development of a basic football skill instrument that is suitable for Filanesia in order to obtain accurate and comprehensive information about the needs, benefits, urgency, form, or model of the instrument based on the results of Focus Group Discussions (FGD) with football school coaches and academics on the football expert. The novelty of this research is in seeking information or data not only using data tabulation from filling out questionnaires but also in-depth interviews during FGDs with football school coaches who have bachelor's and master's status in sports and academics, as well as in-depth literature on football coaching.

2. METHOD

This study uses a mixed method, which combines quantitative and qualitative approaches, where the data obtained is analyzed from a descriptive perspective. The subjects of this study consisted of 25

football school coaches spread across several districts in the Provinces of Bali and 5 expert or academicians of football (at the Faculty of Sports and Health, Universitas Pendidikan Ganesha, and the Faculty of Sports Science, Universitas Negeri Surabaya). The distribution of questionnaires and interview methods in FGD activities was chosen as a technique for collecting data in the field. The questionnaire that was prepared begins with the stages of compiling a lattice of statement item based on theoretical construct. The instrument grid referred to can be seen in Table 1.

Table 1. Grid of Needs Analysis Instruments for *Filanesia*-Based Football Basic Skills Instruments

No.	Dimensions	Indicator	Item Number	Total
1	Football playing instrument	a. Know the types of football game instruments	1,2	2
		b. Complete set of football game instruments	3,4	2
		c. The need for football game instruments	5,6,7,8	4
2	Filanesia	a. Know the concept of Filanesia	9	1
		b. Age group levels in Filanesia	10	1
3	Basic football skills	a. Know the basic skills of football	11	1
		b. Types of basic football skills	12,13	2
		c. The importance of basic football skills	14	1
		d. Basic skills required in the instrument	15,16,17	3

Futhermore, the validity of the questionnaire was tested by experts and professors in the field of sport evaluation from the Faculty of Sports and Health, Universitas Pendidikan Ganesha, as well as academics (doctoral) at the Faculty of Sports Science, Universitas Negeri Padang, who are also "A PSSI" license football coaches. Validation of this questionnaire uses a Gregory test (Diantari et al., 2018). Based on the result of these calculations, it was stated that the questionnaire was very valid with a value of 0.94, which means that the instrument is very feasible to use. Validated questionnaire were distributed to soccer school coaches and soccer academics using the google form with the link <https://forms.gle/X14wyJoRxvTJLLCaA> which aims to get the latest data on the needed of soccer instruments. While the interviews and discussions conducted in the FGD aim to deepen the information from the research subject. The data that has been collected is then analyzed using descriptive statistical analysis by calculating the frequency, and percentage for each of the proposed indicators. In addition to quantitative data, qualitative analysis was carried out by data triangulation, namely triangulation of data collection technique, data sources, time, and theory.

3. RESULT AND DISCUSSION

Result

The results of distributing the questionnaires to the thirty respondents are data or information about knowledge, needs, and urgency of a football instrument for junior football players in accordance with the character of Indonesian society. The respondents involved were football school coaches and academics at universities. The details include coaches currently training at football schools in Buleleng, Tabanan, Jembrana, Klungkung, Karangasem, Gianyar, Badung, and Denpasar districts, as well as lecturers who are experts in football from Undiksha and Unesa as show in Figure 1. Based on formal educational qualifications and coaching competencies, respondents came from undergraduate, master's, and sports doctoral graduates as show in Figure 2. Then coaching competence of respondent is show in Figure 3.

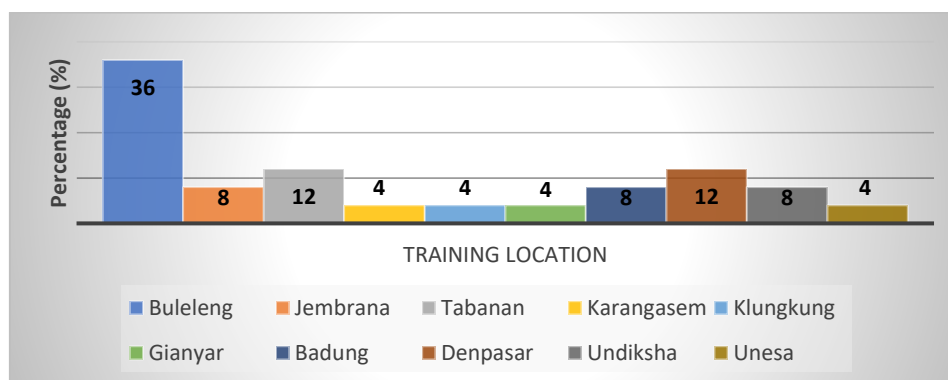


Figure 1. Origin of Respondent

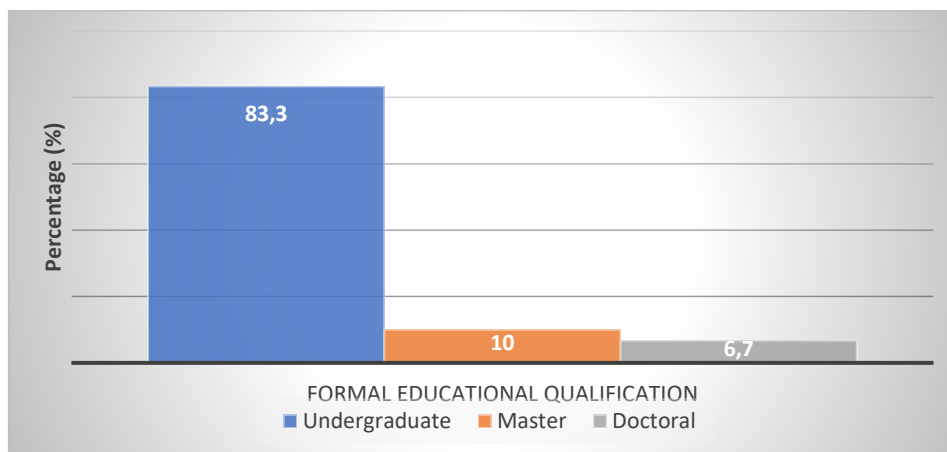


Figure 2. Formal Educational Qualification of Respondent

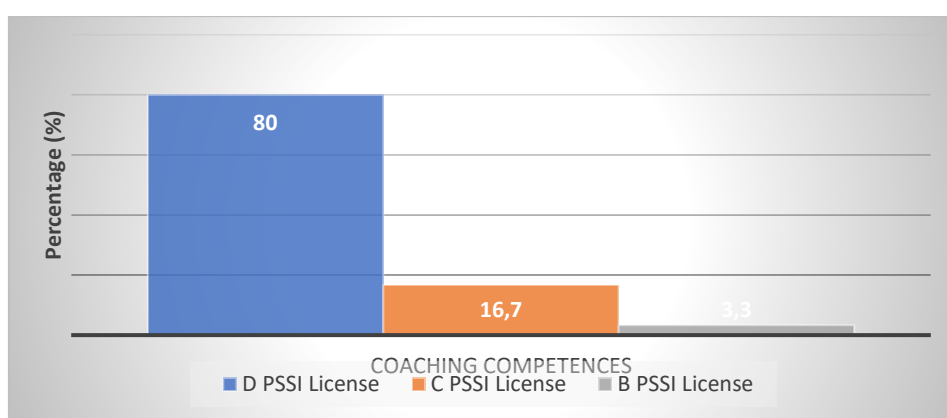


Figure 3. Coaching Competence of Respondent

The questionnaire, consisting of 16 questions distributed to respondents, was aimed at obtaining information about the need for football skill instruments for junior players. Table 2 below shows the results of the respondents' responses to the entire contents of the question.

Table 2. Respondents' Answers to the Need for Developing Football Skill Instruments

No	Question items	Answers (%)	
		Yes	No
1	Do you know the types of football game instruments?	100	0
2	Are football instruments currently considered complete?	3.3	96.7
3	Are football instruments currently considered adequate?	3.3	96.7
4	Does the current football instrument fulfill the skills aspects of football?	76.2	23.8
5	Do you need a good football-playing instrument?	100	0
6	Is there a need for instruments that match the characteristics of the game of football?	100	0
7	Is there a need for instruments that suit the characteristics of the Indonesian people?	100	0
8	Is an instrument that is in accordance with the Indonesian football coaching curriculum needed?	100	0
9	Do you know the level of development in Filanesia?	100	0
10	Do you know the definition of basic football skills?	100	0
11	Do you know the basic types of football skills?	100	0
12	Are the basic skills of passing the ball with your hands also part of the basic skills of football?	0	100
13	Are basic skills very important for football players to master?	100	0

No	Question items	Answers (%)	
		Yes	No
14	Can the existing basic skills be used as the basis for making football-playing instruments?	100	0
15	Should all basic skills be accommodated in making football instruments?	96.7	3.3
16	Is the presence of basic skill instruments very important in the game of football?	100	0

Based on the results of completing the questionnaire as show in [Table 2](#) with 25 football school coaches and 5 football lecturers or experts, the analysis of the development of basic football skill instruments for junior football player in Indonesia is as follows: First, all respondents said they knew the types of football instruments that exist today. However, the existing instruments are not yet complete and adequate. Knowledge of the type of instrument referred to is gained because all respondents are graduates of sports degrees, so when they study, they get this knowledge. Second, all respondents stated that currently a good football skill test is needed that is in accordance with the characteristics of Indonesian football players and the Indonesian Football Development Curriculum by showing all the actions in football. Also, respondents also need basic football skill instruments for the U-12 and U-16 age groups. Apart from referring to the Indonesian Football Development Curriculum, it also refers to youth football competitions. Finally, all respondents stated the importance of basic football skill instruments for coaches and football players. Of course, the instruments used later will adjust to the development of players based on chronological age levels. Furthermore, the results of the FGD basic skills test design are formulated in the form of a circuit that accommodates the basic techniques of football in Filanesia.

The prototype or draft of the skills test model that was successfully compiled was a test for ages 10–12 years is show in [Figure 4](#).

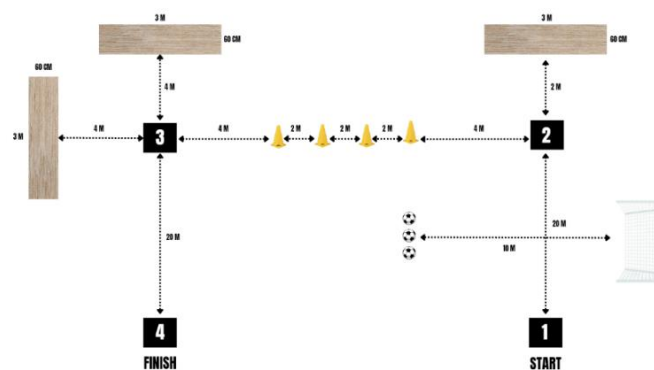


Figure 4. Draft model test of basic football skills for ages 10-12

Based on [Figure 4](#), the test process starts at post 1 and ends at post 4. The ball (size 4) is placed in post 1 (size 50 x 50 cm). The signal starts (whistle sound), and the testee immediately runs with the ball towards post 2, which is 20 meters away. At post 2 (1 x 2 meters in size), the testee performs a passing without control technique (one touch passing) 10 times to the reflective board (60 cm high and 3 meters long), which is 2 meters away. Then head to post 3, using the dribbling technique, as far as 14 meters past four cones. At post 3 (size 2 x 2 meters), the testee does passing and first touch (passing with control) 10 times (5 feet right and 5 feet left). Place the ball in post 3, then sprint towards the shooting area to shoot until the three balls hit the goal measuring 2 x 5 meters from 10 meters. Return to post 3 and run with the ball towards post 4, which is 20 meters away. Stopping the ball at post 4 (50 x 50 cm), the time stops. Then for ages 13–16 years is show in [Figure 5](#).

Looking at [Figure 5](#), the test process also starts at post 1 and ends at post 4. The ball (size 5) is placed in post 1 (size 50 x 50 cm). The signal starts (whistle sound), and the testee immediately runs with the ball towards post 2, which is 30 meters away. At post 2 (1 x 2 meters in size), the testee performs a passing without control technique (one touch passing) 10 times to the reflective board (60 cm high and 3 meters long), which is 2 meters away. Then head to post 3, using the dribbling technique, as far as 18 meters past four cones. At post 3 (size 2 x 2 meters), the testee does passing and first touch (passing with control) 10 times (5 feet right and 5 feet left). Place the ball in post 3, then sprint towards the shooting area to shoot until all five balls hit the goal measuring 2.44 x 7.32 meters from a distance of 16.5 meters. Return to post 3 and run with the ball towards post 4, which is 20 meters away. Stopping the ball at post 4 (50 x 50 cm), the time stops.

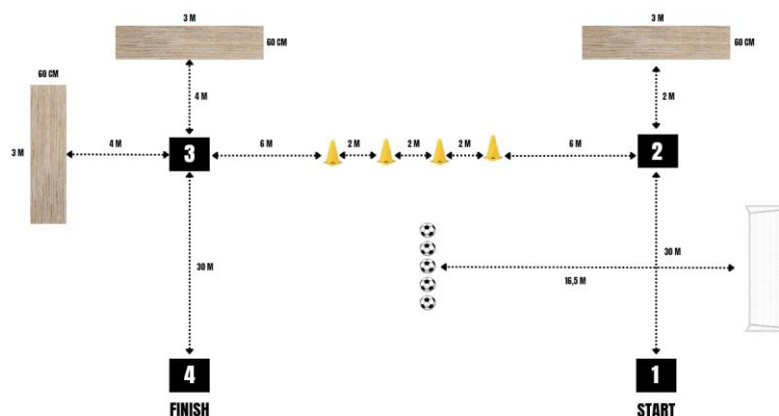


Figure 5. Draft Model Test of Basic Football Skills for Ages 13-16

Discussion

Based on the results of filling out the questionnaire and conducting in-depth interviews during the FGD, the first problem has been answered; that is, all respondents stated the importance of a football skill measurement test for both the coach and the players themselves. It was explained by one respondent that tests and measurements have important benefits for coaches. Important as talent identification (Malik et al., 2020; Radicchi & Mozzachiodi, 2016; Zuber et al., 2016) as well as a report on the results of each athlete's training (Ricky Kurniawan et al., 2020; Sudarko et al., 2023). A coach who is said to be the main character in improving sports achievement of course that have to act professionally, one of which is applying sports science in the form of sports measurement tests (Sofyan, 2022; Suratmin et al., 2022; Walker et al., 2018). Moreover, looking at the results of previous studies that stated that the competence of coaches correlated with the motivation of athletes in training and competing (Jowett et al., 2017; Menting et al., 2019; Mu'ammal et al., 2022).

Although there are currently several football skill instruments that have been used by previous study, such as a skills test for women's football players (Kutlu et al., 2017), Loughborough soccer passing test on elite young soccer (Serpiello et al., 2017), The F-MARC battery test is used to identify young football talent (Padrón-Cabo et al., 2019), modified football match simulation, which is used to see the skills of youth players with professional status in match situations that resemble match situations (Rodriguez-Giustiniani et al., 2022), however, the instrument is felt to have not met expectations and is incomplete and inadequate, as stated by the respondents above. The characteristics of modern football game or football match situation is that all players move dynamically and make fast and correct decisions, supported by optimal physical and technical qualities (Julian et al., 2021; Modric et al., 2021; Roca & Ford, 2020).

The second problem regarding the urgency of the need for football game instrument models by football school coaches has also been answered. All respondents have also stated that football instruments that are in accordance with the character of Indonesian players and based on Filanesia are urgent at this time. The character of the Indonesian football player in question is that he has a posture that is not taller than other races but has the speed to run at close range (Rahim, 2022; Sthevanie et al., 2018; Wibowo, 2020). Based on Filanesia, he means, among other things, a fast playing style according to the strengths of Indonesians (Wahyudi & Laturrakhmi, 2022; Weda & Kurniawan, 2022), development levels based on age are divided into three categories: 6–9 years, 10–13 years, and 14–17 years (Munar et al., 2023; Nento, M., Sulaiman, S., & Hartono, 2023). This means that the test model currently needed by football school coaches is one that modifies and adopts the existing types of soccer skill tests, elaborates on the characteristics of Indonesian players, and is based on age clusters in Filanesia.

Players are required to always move quickly with or without the ball, execute the ball on target, and be able to optimize their physical abilities to support the skills displayed. This is, of course, very much in accordance with the demands of modern football today, namely playing with high intensity, speed, and precision (Memmert & Rein, 2018; Strauss et al., 2019; Wass et al., 2020). Seeing that the two draft instrument models have fulfilled the elements of a fast and precise way of action, different age levels cause the demands of the tasks on the two model drafts to also be different. The important findings at this time have answered the problem, namely the usefulness of an instrument for coaches and players as well as the urgent need for football school coaches for skills instruments that match the character of Indonesian players and the Indonesian Football Coaching Curriculum (Padrón-Cabo et al., 2020; Sarmiento et al., 2020). So that the football school coaches who train based on Filanesia have guidelines and instrument models that are suitable for Filanesia.

The current results contribute to scientific thinking or preliminary studies in developing a model of a basic football skill instrument that is appropriate to the real needs of football schools. It's just that the limitations of this study were that respondents were involved in only one province, namely the province of Bali, even though it involved one sports lecturer from Universitas Negeri Surabaya. The second limitation is that these findings are still in the nature of a draft model that needs to be tested for validity and reliability in the field. This prompted further research to conduct an in-depth analysis by involving a more diverse range of respondents, namely football school coaches in two or three provinces, and to test the validity and reliability of this instrument model. So that in the future, football school coaches can use this instrument model in evaluating their players.

4. CONCLUSION

Based on findings and discussion above, it can be concluded that the instrument of playing football skills is very important and needed by football school coaches. The instrument in question must be in accordance with the characteristics of Indonesian football players and the age level as stated in Filanesia. All aspects of the basic technique of playing football must be accommodated in one set of test. Thus, the Filanesia-based football skills instrument model, which is still in draft form, must be validated and tested for reliability. This is an opportunity for the future research so that this instrument model can be used by coaches at football schools throughout Indonesia.

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6. REFERENCES

- Ahmad, A., Tenriliweng, H., Aries, D., Pulubuhu, T., Mengge, B., Muhammad, R., & Hasanuddin, U. (2023). Mechanisms of Conflict and Violence among Football Supporters in Indonesia. *Central European Management Journal*, 31(2), 1334–1341. <https://doi.org/10.32052/23364890.cemj.31.2.1334>.
- Bujnovsky, D., Maly, T., Ford, K. R., Sugimoto, D., Kunzmann, E., Hank, M., & Zahalka, F. (2019). Physical fitness characteristics of high-level youth football players: Influence of playing position. *Sports*, 7(2), 1–10. <https://doi.org/10.3390/sports7020046>.
- Danurwindo, Ganesha, P., Sidik, B., & Prahara, J. L. (2017). *Kurikulum Pembinaan Sepakbola Indonesia*. Persatuan Sepakbola Seluruh Indonesia.
- Dharmadi, M. A., Widiartini, N. K., & Parwata, I. G. L. A. (2021). An analysis of junior weight vest development to improve physical abilities of junior athletes. *International Journal of Human Movement and Sports Sciences*, 9(3), 466–472. <https://doi.org/10.13189/saj.2021.090311>.
- Diantari, L. P. E., Damayanthi, L. P. E., Sugihartini, N. S., & Wirawan, I. M. A. (2018). Pengembangan e-modul berbasis mastery learning untuk mata pelajaran KKPI kelas XI. *Jurnal Nasional Pendidikan Teknik Informatika: JANAPATI*, 7(1), 33–47. <https://doi.org/10.23887/janapati.v7i1.12166>.
- Ferrari, S. (2019). Traditional and mediatized soccer fanship: the case of Indonesian Juventus' supporters. *Soccer and Society*, 20(3), 528–542. <https://doi.org/10.1080/14660970.2017.1357032>.
- Filipas, L., Borghi, S., La Torre, A., & Smith, M. R. (2021). Effects of mental fatigue on soccer-specific performance in young players. *Science and Medicine in Football*, 5(2), 150–157. <https://doi.org/10.1080/24733938.2020.1823012>.
- González-Rodenas, J., Aranda-Malavés, R., Tudela-Desantes, A., Calabuig Moreno, F., Casal, C. A., & Aranda, R. (2019). Effect of Match Location, Team Ranking, Match Status and Tactical Dimensions on the Offensive Performance in Spanish 'La Liga' Soccer Matches. *Frontiers in Psychology*, 10(September), 1–11. <https://doi.org/10.3389/fpsyg.2019.02089>.
- González-Rodenas, J., Aranda-Malaves, R., Tudela-Desantes, A., Nieto, F., Usó, F., & Aranda, R. (2020). Playing tactics, contextual variables and offensive effectiveness in English Premier League soccer matches. A multilevel analysis. *PLoS ONE*, 15(2), 1–15. <https://doi.org/10.1371/journal.pone.0226978>.

- Gumantan, A., Mahfud, I., & Yuliandra, R. (2021). Pengembangan Alat Ukur Tes Fisik dan Keterampilan Cabang Olahraga Futsal berbasis Desktop Program. *Journal of Sport Science and Education*, 6(2), 146–155. <https://doi.org/https://doi.org/10.26740/jossae.v6n2>.
- Irmansyah, J. (2017). Evaluasi program pembinaan prestasi cabang olahraga bola voli pantai. *Jurnal Keolahragaan*, 5(1), 24. <https://doi.org/10.21831/jk.v5i1.12759>.
- Jowett, S., Adie, J. W., Bartholomew, K. J., Yang, S. X., Gustafsson, H., & Lopez-Jiménez, A. (2017). Motivational processes in the coach-athlete relationship: A multi-cultural self-determination approach. *Psychology of Sport and Exercise*, 32, 143–152. <https://doi.org/10.1016/j.psychsport.2017.06.004>.
- Jukic, I., Prnjak, K., Zoellner, A., Tufano, J. J., Sekulic, D., & Salaj, S. (2019). The importance of fundamental motor skills in identifying differences in performance levels of u10 soccer players. *Sports*, 7(7), 1–11. <https://doi.org/10.3390/sports7070178>.
- Julian, R., Page, R. M., & Harper, L. D. (2021). The Effect of Fixture Congestion on Performance During Professional Male Soccer Match-Play: A Systematic Critical Review with Meta-Analysis. *Sports Medicine*, 51(2), 255–273. <https://doi.org/10.1007/s40279-020-01359-9>.
- Kusuma, K. C. A., Artanayasa, W., Mashuri, H., & Dharmadi, M. A. (2022). The Relationship between Shot on Goal Level and the Final Results of Soccer Matches in the 2021 Indonesian League 3 Bali Zone. *International Journal of Human Movement and Sports Sciences*, 10(4), 797–806. <https://doi.org/10.13189/saj.2022.100420>.
- Kutlu, M., Yapici, H., & Yilmaz, A. (2017). Reliability and Validity of a New Test of Agility and Skill for Female Amateur Soccer Players. *Journal of Human Kinetics*, 56(1), 219–227. <https://doi.org/10.1515/hukin-2017-0039>.
- Le Moal, E., Rué, O., Ajmol, A., Abderrahman, A. B., Hammami, M. A., Ounis, O. B., Kebsi, W., & Zouhal, H. (2014). Validation of the Loughborough Soccer Passing Test in young soccer players. *Journal of Strength and Conditioning Research*, 28(5), 1418–1426. <https://doi.org/10.1519/JSC.0000000000000296>.
- Leeder, T. M., & Sawiuk, R. (2021). Reviewing the sports coach mentoring literature: a look back to take a step forward. *Sports Coaching Review*, 10(2), 129–152. <https://doi.org/10.1080/21640629.2020.1804170>.
- Lubis, A. E., Mawardinur, & Dewi, R. (2020). Talent Scouting Atlet Sepak Bola Usia 10 Sampai 11 Tahun. *JPJ (Jurnal Pendidikan Jasmani)*, 1(1), 29–32. <https://doi.org/https://doi.org/10.55081/jpj.v1i1.107>.
- Malik, A., Sunardi, S., & Ardianto, D. T. (2020). Pengembangan Panduan Identifikasi Bakat Olahraga Berbasis Teknologi Sport Search. *Journal of Curriculum Indonesia*, 3(2), 54. <https://doi.org/10.46680/jci.v3i2.30>.
- Marzuki, M., & Sukoco, P. (2019). The Exercise Method and Eye-Foot Coordination in Soccer Playing Skills for 14-15 Years Old Players. *2nd Yogyakarta International Seminar on Health, Physical Education, and Sport Science (YISHPESS 2018)*, 278, 346–350. <https://doi.org/10.2991/yishpess-cois-18.2018.85>.
- Mashuri, H. (2019). Evaluasi Program Pembinaan Tenis Lapangan PELTI Kota Palembang. *JOSSAE : Journal of Sport Science and Education*, 4(1), 7. <https://doi.org/10.26740/jossae.v4n1.p7-13>.
- Memmert, D., & Rein, R. (2018). Match analysis, big data and tactics: Current trends in elite soccer. *Deutsche Zeitschrift Fur Sportmedizin*, 69(3), 65–72. <https://doi.org/10.5960/dzsm.2018.322>.
- Menting, S. G. P., Hendry, D. T., Schiphof-Godart, L., Elferink-Gemser, M. T., & Hettinga, F. J. (2019). Optimal Development of Youth Athletes Toward Elite Athletic Performance: How to Coach Their Motivation, Plan Exercise Training, and Pace the Race. *Frontiers in Sports and Active Living*, 1(August). <https://doi.org/10.3389/fspor.2019.00014>.
- Modric, T., Versic, S., & Sekulic, D. (2021). Does aerobic performance define match running performance among professional soccer players? A position-specific analysis. *Research in Sports Medicine*, 29(4), 336–348. <https://doi.org/10.1080/15438627.2021.1888107>.
- Mu'ammal, I., Muzakki, A., Fakhri, E. A., & Setiawan, E. (2022). The competence of a coach in sports : How does it correlate with athlete motivation? *Journal Sport Area*, 7(3), 396–404. [https://doi.org/https://doi.org/10.25299/sportarea.2022.vol7\(3\).10540](https://doi.org/https://doi.org/10.25299/sportarea.2022.vol7(3).10540).
- Munar, H., Ma, A., & Yuliawan, E. (2023). Pengaruh Model Latihan Filanesia Terhadap Performa Pada Atlet Sepakbola Wanita. *Sporta Saintika*, 8(1), 96–112. <https://doi.org/https://doi.org/10.24036/sporta.v8i1.283>.
- Nento, M., Sulaiman, S., & Hartono, M. (2023). Analysis of the Implementation of PSSI Football Curriculum Age 14-17 Years in Soccer Schools in Gorontalo Province. *JUARA: Jurnal Olahraga*, 8(1), 412–422. <https://doi.org/https://doi.org/10.33222/juara.v8i1.2776>.
- Padrón-Cabo, A., Rey, E., Kalén, A., & Costa, P. B. (2020). Effects of Training with an Agility Ladder on Sprint, Agility, and Dribbling Performance in Youth Soccer Players. *Journal of Human Kinetics*, 73(1), 219–

228. <https://doi.org/10.2478/hukin-2019-0146>.
- Padrón-Cabo, A., Rey, E., Pérez-Ferreirós, A., & Kalén, A. (2019). Test–Retest Reliability of Skill Tests in the F-MARC Battery for Youth Soccer Players. *Perceptual and Motor Skills*, 126(5), 1006–1023. <https://doi.org/10.1177/0031512519866038>.
- Post, E. G., Trigsted, S. M., Schaefer, D. A., Cadmus-Bertram, L. A., Watson, A. M., McGuine, T. A., Brooks, M. A., & Bell, D. R. (2020). Knowledge, Attitudes, and Beliefs of Youth Sports Coaches Regarding Sport Volume Recommendations and Sport Specialization. *Journal of Strength and Conditioning Research*, 34(10), 2911–2919. <https://doi.org/10.1519/JSC.0000000000002529>.
- Radicchi, E., & Mozzachiodi, M. (2016). Social talent scouting: A new opportunity for the identification of football players? *Physical Culture and Sport, Studies and Research*, 70(1), 28–43. <https://doi.org/10.1515/pcssr-2016-0012>.
- Rahim, A. (2022). Kerajaan Melayu Kuno: Tinjauan Sejarah Jambi Hingga abad 13. *Jurnal Ilmiah Dikdaya*, 12(1), 172. <https://doi.org/10.33087/dikdaya.v12i1.288>.
- Ricky Kurniawan, A. P., Junaidi, S., Setya Subiyono, H., & S, S. H. (2020). Health and Recreations Journal of Physical Education, Sport, Health and Recreation. *Journal of Physical Education, Sport*, 9(1), 58–62. <https://eric.ed.gov/?id=ED075402>.
- Robles-Palazón, F. J., López-Valenciano, A., De Ste Croix, M., Oliver, J. L., García-Gómez, A., Sainz de Baranda, P., & Ayala, F. (2022). Epidemiology of injuries in male and female youth football players: A systematic review and meta-analysis. *Journal of Sport and Health Science*, 11(6), 681–695. <https://doi.org/10.1016/j.jshs.2021.10.002>.
- Roca, A., & Ford, P. R. (2020). Decision-making practice during coaching sessions in elite youth football across European countries. *Science and Medicine in Football*, 4(4), 263–268. <https://doi.org/10.1080/24733938.2020.1755051>.
- Rodriguez-Giustiniani, P., Rollo, I., & Galloway, S. D. R. (2022). A preliminary study of the reliability of soccer skill tests within a modified soccer match simulation protocol. *Science and Medicine in Football*, 6(3), 363–371. <https://doi.org/10.1080/24733938.2021.1972137>.
- Santoso, N. (2014). Tingkat Keterampilan Passing-Stoping Dalam Permainan Sepakbola Pada Mahasiswa PJKR B Angkatan 2013. *Jurnal Pendidikan Jasmani Indonesia*, 10(2), 40–48. <https://doi.org/10.21831/jppi.v10i2.5699>.
- Sarmiento, H., Clemente, F. M., Gonçalves, E., Harper, L. D., Dias, D., & Figueiredo, A. (2020). Analysis of the offensive process of AS Monaco professional soccer team: A mixed-method approach. *Chaos, Solitons and Fractals*, 133, 1–7. <https://doi.org/10.1016/j.chaos.2020.109676>.
- Scharfen, H. E., & Memmert, D. (2019). The relationship between cognitive functions and sport-specific motor skills in elite youth soccer players. *Frontiers in Psychology*, 10(APR), 1–10. <https://doi.org/10.3389/fpsyg.2019.00817>.
- Serpiello, F. R., Cox, A., Oppici, L., Hopkins, W. G., & Varley, M. C. (2017). The Loughborough Soccer Passing Test has impractical criterion validity in elite youth football. *Science and Medicine in Football*, 1(1), 60–64. <https://doi.org/10.1080/02640414.2016.1254810>.
- Sofyan, D. (2022). The Development of Sports Management Research in Indonesia in the Early Twenty-First Century: A Bibliometric Analysis. *Indonesian Journal Of Sport Management*, 2(1), 28–37. <https://doi.org/10.31949/ijsm.v2i1.2248>.
- Sthevanie, F., Rasyid, H. F., & Ramadhani, K. N. (2018). Klasifikasi Ras Mongoloid Berbasis Citra Wajah Menggunakan Algoritma K-Nearest Neighbors. *Indonesia Journal On Computing*, 3(1), 45–54. <https://doi.org/https://doi:10.21108/INDOJC.2018.31.212>.
- Strauss, A., Sparks, M., & Pienaar, C. (2019). The use of GPS analysis to quantify the internal and external match demands of semi-elite level female soccer players during a tournament. *Journal of Sports Science and Medicine*, 18(1), 73–81. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6370966/>.
- Sudarko, R. A., Hariono, A., Tirtawirya, D., Tomoliyus, & Nugroho, H. (2023). Evaluation of Disability Sports Training Program at the National Paralympic Committee (NPC) Special Region of Yogyakarta. *International Journal of Human Movement and Sports Sciences*, 11(4), 746–752. <https://doi.org/10.13189/saj.2023.110407>.
- Sudiana, I. K., Suwiwa, I. G., Kusuma, K. C. A., Darmawan, G. E. B., Tisna MS, G. D., & Mardana, G. (2023). Sprint Acceleration and Two-Leg Skipping: Methods for Improve Football Dribbling Ability. *Jurnal Mimbar Ilmu*, 28(1), 41–47. <https://doi.org/https://doi.org/10.23887/mi.v28i1.57947>.
- Supriyono, E. (2018). Pengembangan aplikasi tes keterampilan sepakbola berbasis web. *Jurnal Keolahragaan*, 6(1), 38–47. <https://doi.org/10.21831/jk.v6i1.12764>.
- Suratmin, I Putu Darmayasa, I Putu Panca Adi, I Ketut Sudiana, Ratna Kumala Setyaningrum, & Hanik Liskustyawati. (2022). Achievement Sport Mapping Based on Evaluation of Koni Sports Development Program Using Context, Input, Process, Product (CIPP) Methods. *Mimbar Ilmu*, 27(3),

- 391–398. <https://doi.org/10.23887/mi.v27i3.54809>.
- Syaifullah, R., & Doewes, R. I. (2020). Pencak silat talent test development. *International Journal of Human Movement and Sports Sciences*, 8(6), 361–368. <https://doi.org/10.13189/saj.2020.080607>.
- Till, K., & Baker, J. (2020). Challenges and [Possible] Solutions to Optimizing Talent Identification and Development in Sport. *Frontiers in Psychology*, 11(April), 1–14. <https://doi.org/10.3389/fpsyg.2020.00664>.
- Turna, B., & Alp, M. (2020). The Effects of Functional Training on Some Biomotor Abilities and Physiological Characteristics in Elite Soccer Players. *Journal of Education and Learning*, 9(1), 164. <https://doi.org/10.5539/jel.v9n1p164>.
- Villarreal, E. S. de, Suarez-Arrones, L., Requena, B., Haff, G. G., & Ferrete, C. (2015). Effects of Plyometric and Sprint Training on Physical and Technical Skill Performance in Adolescent Soccer Players. *Journal of Strength and Conditioning Research*, 29(7), 1894–1903. <https://doi.org/10.1519/JSC.0000000000000838>.
- Wahyudi, D., & Laturrahmi, Y. F. (2022). Sport Communication : Revealing the Use Communication on Football Coaching Process of Instructional. *Profetik*, 15(1), 83–100. <https://doi.org/https://doi.org/10.14421/pjk.v15i1.2302>.
- Walker, L. F., Thomas, R., & Driska, A. P. (2018). Informal and nonformal learning for sport coaches: A systematic review. *International Journal of Sports Science & Coaching*, 13(5), 694–707. <https://doi.org/10.1177/1747954118791522>.
- Wass, J., Mernagh, D., Pollard, B., Stewart, P., Fox, W., Parmar, N., Jones, B., Kilduff, L., & Turner, A. N. (2020). A comparison of match demands using ball-in-play vs. whole match data in elite male youth soccer players. *Science and Medicine in Football*, 4(2), 142–147. <https://doi.org/10.1080/24733938.2019.1682183>.
- Weda, & Kurniawan, W. P. (2022). Peranan Filosofi Sepakbola Indonesia dalam Pengajaran Sepakbola di Universitas Nusantara PGRI Kediri. *Jurnal Pendidikan Kesehatan Rekreasi*, 8(1), 206–211. <https://doi.org/https://doi.org/10.5281/zenodo.5900407>.
- Wen, D., Robertson, S., Hu, G., Song, B., & Chen, H. (2018). Measurement properties and feasibility of the Loughborough soccer passing test: A systematic review. *Journal of Sports Sciences*, 36(15), 1682–1694. <https://doi.org/10.1080/02640414.2017.1409611>.
- Wibowo, H. F. (2020). Identifikasi Bakat Pemain Sepak Bola Modern Dalam Perspektif Pelatih Sepak Bola Indonesia. *SATRIA Journal*, 3(1), 24–28. <http://publikasi.stkipgri-bkl.ac.id/index.php/SATRIA/article/view/325>.
- Womsiwor, D., Adiputra, N., Bakta, I. M., Purba, A., Jawi, I. M., Ketut Suyasa, I., & Fitria, N. (2020). A Predominant Physical Component Profile of Persipura Junior Football Athletes. *Jurnal Pendidikan Jasmani Dan Olahraga*, 5(1), 55–61. <https://doi.org/10.17509/jpjo.v5i1.23792>.
- Yani, A., & Fransazeli, M. (2023). The effect of a goalkeeper's quiet eye training and without goalkeeper training against the accuracy of kicks on goal. *SPORTIF*, 9(2), 198–211. https://doi.org/https://doi.org/10.29407/js_unpgri.v9i2.19924.
- Yusfi, H., Ani, D., & Ana, D. (2019). Evaluasi Program Pembinaan Puslatda Cabang Olahraga Anggar Sumatera Selatan Dalam Menghadapi Pon Jawa Barat. *Jurnal Altius*, 8(2), 77–84. <https://doi.org/10.36706/altius.v8i2.9027>.
- Zuber, C., Zibung, M., & Conzelmann, A. (2016). Holistic patterns as an instrument for predicting the performance of promising young soccer players - A3-years longitudinal study. *Frontiers in Psychology*, 7(JUL), 1–10. <https://doi.org/10.3389/fpsyg.2016.01088>.