
THE EXTERNAL FACTORS OF PARTICIPATION IN DISTRICT-LEVEL FOOTBALL COMPETITIONS AMONG PAHANG ABORIGINE YOUTH STUDENT-PLAYERS

Mohamad Nor Farihan Sulong^{1*}, Zulakbal Abd Karim¹, Rozaireen Muszali¹, Frederick Josue @ Mohd Fadhil Abdullah², Abdul Rahaman Mohamed¹

¹Universiti Pendidikan Sultan Idris, 35900 Tg Malim, Perak, Malaysia

²Universiti Malaysia Sabah, Kota Kinabalu, Sabah, Malaysia

*Corresponding: m.farihansulong@gmail.com

Published online: 13 December 2024

To cite this article (APA): Sulong, M. N. F., Abd Karim, Z., Muszali, R., Abdullah, F. J. @ M. F., & Mohamed, A. R. (2024). The external factors of participation in District-Level Football competitions among Pahang aborigine youth student-players. *Jurnal Sains Sukan & Pendidikan Jasmani, 13*(Isu Khas), 120–130. <https://doi.org/10.37134/jsspj.vol13.sp.13.2024>

To link to this article: <https://doi.org/10.37134/jsspj.vol13.sp.13.2024>

Abstract

This needs analysis study is about the factors of participation in the next level competition among Aborigine youth football players. This study employed a non-experimental research design. The study utilized purposive samples of n=31, coaches at secondary and primary schools selected purposively across Malaysia's peninsular. There are two mainstays in terms of external factors in this study which are fitness (sprint and endurance), and game (decision-making and skills execution) performance. The data was analyzed using descriptive statistics. Findings indicated that there was necessary to give attention on fitness performance regarding endurance as well as sprint. Besides, there were very necessary to improve game configurations including decision-making and skills execution. In conclusion, Aborigine youth football student-players are still left behind in terms of fitness as well as game performance. Special attentiveness should be contemplated to overwhelm these barriers. Future studies should also contemplate the other external factors as well as the internal factors by considering their norms and culture.

Keywords: Needs Analysis, Aborigine, coaches, game performance, fitness performance, football.

INTRODUCTION

According to Malaysian legislation of Aboriginal People Act 134 (1954) stated that aboriginal people refer to people who were born as Aboriginal people and who are descendants of Aboriginal people whether on behalf of his or her mother or father and children from other races who were raised as an aboriginal people will be considered as an aboriginal people. This ordinance also declared that these people are privileged and have rights to racial equality. There are three big groups of aboriginal people in Malaysia which are Negrito, Senoi, and Melayu Proto. In addition, every single group consists of six different tribes. In Negrito group, there are six different tribes including Kensiu, Kintaq, Jahai, Mendriq, Bateq, and Lanoh. Meanwhile, six different tribes represent in Senoi group which are Temiar, Semai, Jah Hut, Che Wong, Semoq Beri, and Mah Meri. The next six tribes in Proto Melayu Group comprise Temuan, Jakun, Semelai, Orang Kuala, Orang Seletar, and Orang Kanaq. The total of Aboriginal people

throughout Malaysia in peninsular is about 206, 777 people (Orang Asli Development Department, 2020). Football is one of the favorite sports in the world. This game has its own affection in attracting people to love it either by playing during physical education learning class and coaching context or just by watching the game. Football is the most popular sport in Malaysia and is played at various levels (Najib Razak, Zulakbal Abd Karim & Ahmad Hashim, 2020). Nevertheless, aboriginal people also love to play this sport even among youth. This research was initially prompted by concerns and anecdotal evidences about marginal participation among Aborigine youth football players in football competitions especially at the next level. Anecdotal evidences were seen through the frequent reports and hearsay among coaches regarding the low participation of Aborigine youth football players in the next level competition due to internal and external factors at the secondary level. The initial step of this survey is by doing interviews and discussion with open-ended questions with two experts in the field who are lecturers in a university and also five coaches at the school level with two of them had license B and two more had license C in football coaching and another one has no coaching license but had referee license level 2. Two of the coaches are Aboriginal heritage and the rest are Malay descendants. All of them had worked in aboriginal environments for over 10 years.

The researcher has thought of using purposeful sampling to reach out to and confer with coaches and specialists at the school level. By using this deliberate sampling technique, the researcher can get information from participants on the current state of a problem in a well-investigated area (Creswell, 2015). According to Spencer (1993), to obtain valuable qualitative data, seven participants were sufficient. All of them agreed with the domains that have been emerged during the discussion session regarding external factors in this study which are fitness (sprint and endurance), and game (decision-making and skills execution) performance. In order to ascertain such factors that have existed, a needs analysis will be conducted to identify existing problems or weaknesses revolving around external factors. The needs analysis carried out consisted of an online discussion with experts and coaches in a region followed by a survey using a set of questionnaires to confirm the issues across the peninsular of Malaysia. It showed that all respondents who took part in online discussion agreed that there were some lacking spirals around the external factors including fitness (sprint and endurance), and game (decision-making and skills execution) performance have been highlighted. The further confirmation will be gained by utilizing questionnaire surveys around these factors among coaches at secondary and primary levels throughout the peninsular of Malaysia. However, there are initiatives have been taken by the Ministry of Education, Malaysia (MOE) to empower and provide equal opportunities for them to actively participate in sports. The MOE under the Sports, Co-curriculum, and Arts Division has implemented a specific policy to provide exposure and opportunities for Aboriginal students to demonstrate their talents and abilities with the organization of the National Level Orang Asli Student School Games which started in 2010 until now which also involves football competitions (KPM, 2010). The MOE's noble efforts to develop Indigenous school students in this field of sports are in line to organize the tournament which is to provide a platform for Aboriginal school students to showcase their talents, produce world-class athletes among Aboriginal school students, and empower competitions among Aboriginal school students. In addition, Aboriginal school children throughout Malaysia can be given exposure and structured competition opportunities to showcase their talents and skills without a lack of humility.

There are two research objectives for this study. The objectives are to analyze the external factors in terms of fitness performance (sprint and endurance), and game performance (decision-making and skills execution) among Aborigine youth football players under 18 at chosen secondary and primary schools that are selected purposively across peninsular of Malaysia.

METHODOLOGY

This study employed a non-experimental research design. This study was designed as non-experimental research that used quantitative methods. The quantitative method has been used at different points of this study to support and provide a better understanding of the study and its findings. This approach is important and will play a vital role in this study. This study was non-experimental research since it did not contain a control group and experimental group. The application of this study was specific to the

coaching education sector where the focus was to increase the efficiency in implementing the training sessions by coaches at the primary and secondary school level. Therefore, in order to achieve this, a combination of pedagogy, sports science, and culture was required to enable the efficiency of training among Aborigine youth players. 31 coaches from secondary and primary schools in the Malaysian Peninsula were chosen through purposive sampling in this study. There are two mainstays in terms of external factors in this study which are fitness (sprint and endurance), and game (decision-making and skills execution) performance. The data was analyzed using statistical descriptive technique and have been processed with the statistical software SPSS STATISTICS Version 23. This study was divided into three main stages namely Stage 1: Background, Stage 2: Needs analysis, and Stage 3: Documentation. The research conceptual framework shown in Figure 1 gives a brief overview of this study.

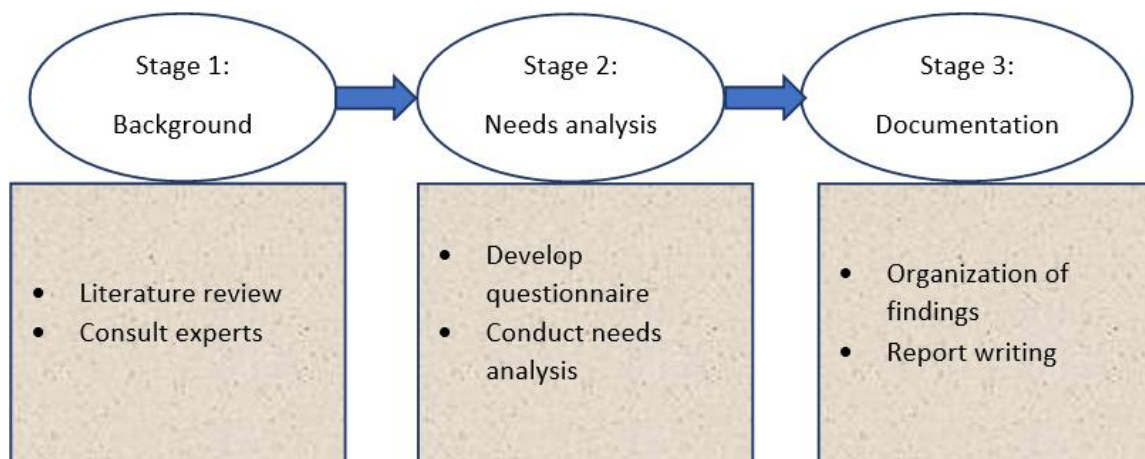


Figure 1: Research conceptual framework

Stage 1 was known as the background stage; this stage concentrated on acquiring a strong foothold on the underlying basis of this study. Information was obtained through the review of past research and also through the discussion with experts conducted by the researcher.

Stage 2: Development was the most crucial part of this study since the main outcomes and contributions were attained during this stage. This stage focused on the development of the questionnaire as well as the needs analysis implementation.

Stage 3: Documentation, was the stage where it all came together. At this stage, the findings were organized systematically and therefore enabled a precise report to be prepared.

An operational framework was utilized to present the breakdown of the main activities involved in this study. This framework acted as a guide that enabled the researcher to properly plan and organize all research activities required to achieve the research objectives.

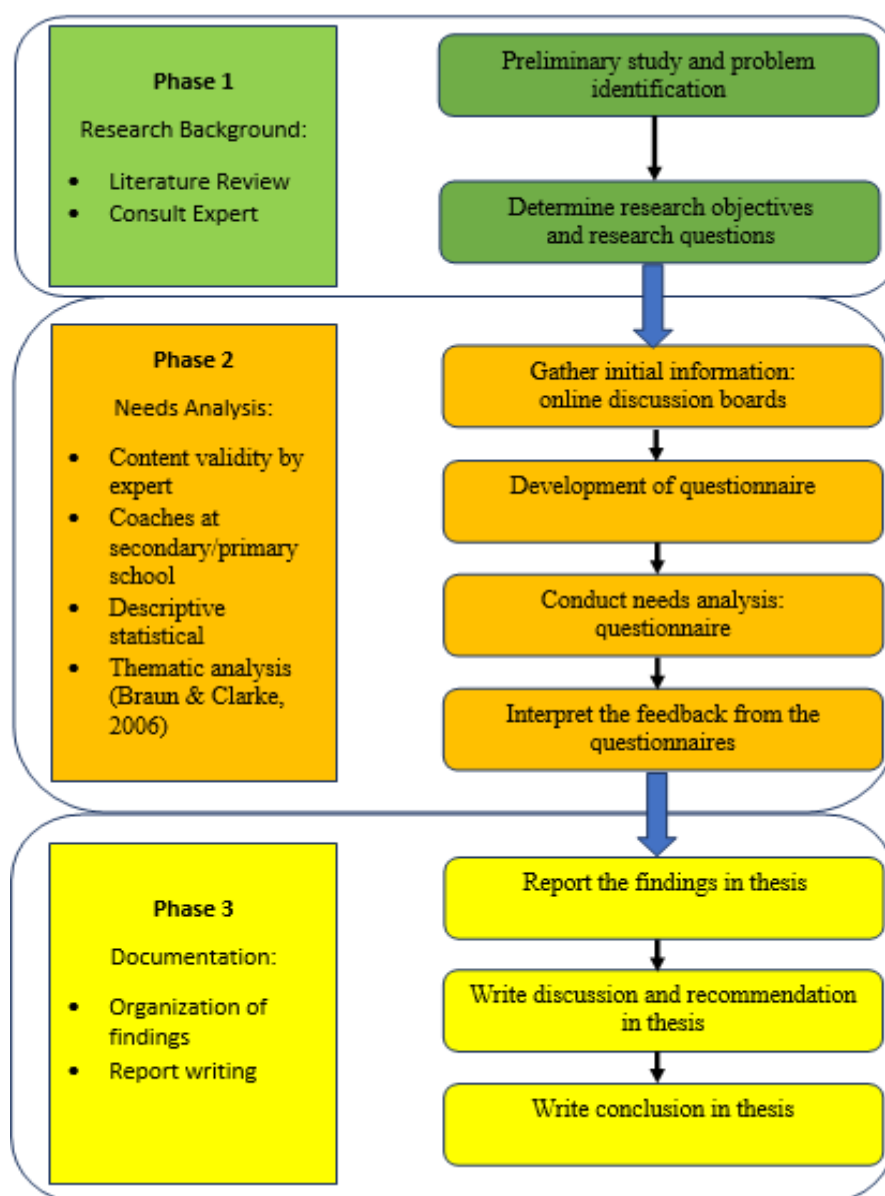


Figure 2: Research operational framework

As shown in the research operational framework (Figure 2), this study was carefully structured into three phases of main research activities. These phases were: 1) Research Background; 2) Needs Analysis; and 3) Documentation.

Phase 1

Phase 1, the background study, was the base of the study. The background underlying this study was analyzed and initial groundwork was carried out; thus, research questions were formed through the identification of problems and research objectives. Following this, the study's scopes and limitations were determined accordingly.

Phase 2

In the needs analysis conducted in phase 2, feedback was collected from respondents via online discussion which online discussion with experts is the initial step to identify internal as well as external factors. Next, the questionnaire will be disseminated to get further confirmation from the coaches across the peninsular of Malaysia at the secondary/primary school level. The purpose of the needs analysis was to identify strengths, weaknesses, problems faced and also the needs or requirements. This study is also used as the basis to address the needs, lacks and wants among Aborigines youth players and the researcher will try to curb some domains that have been existed in order to help reduce existing problems and fulfil the needs of players.

Phase 3

In phase 3, the findings have been reported in the thesis after interpretation step in phase 2 by using descriptive statistical and thematic analysis. Besides, the discussion as well as recommendations have also been written in the thesis. Then, the conclusion in the thesis has been written as well.

Population and Sample

This study utilized a non-probability sampling technique which is a purposive sampling technique to determine the necessities, lacks, and wants of Aborigine youth players. Typically, the purposive sampling technique had been used for qualitative study widely but in this case, purposive sampling can be used with a number of techniques in data gathering (Godambe, 1982 as echoed in Dolores & Tongco (2007). A study may be started with a survey, then purposive sampling done based on the survey (Brown, 2005 as echoed in Dolores & Tongco, 2007). Both qualitative and quantitative sampling methods may be used when samples are chosen purposively (Campbell, 1955 as echoed in Dolores & Tongco, 2007). There are some examples of quantitative research that used the purposive sampling technique such as Robbins et al. (1969) by using a questionnaire as the instrument and Zhen et al. (2006) using ranking activities, and questionnaires as instruments as echoed in Dolores & Tongco (2007).

In addition, there is no cap on how many informants should make up a purposive sample, as long as the needed information is obtained (Bernard, 2002 as echoed in Dolores & Tongco, 2007). There are about $n=31$, coaches at secondary and primary schools that were selected purposively across the peninsular of Malaysia. According to Krejcie & Morgan table (1970) stated that if the population $N=30$, the sample $n=28$ are adequate to participate in this study. Obviously, it is more than enough. Two types of purposive sampling techniques have been contemplated by the researcher in this study into the bargain. First, the researcher has considered samples that truly represent the population and second, the samples that do not represent the population but have the information revolve around parameters in this study (Noraini Idris, 2013). Even though the main samples in this study are the coaches at the secondary school level, coaches at the primary school level have also been taken into account.

Instrumentation

The study utilized the following instrument to investigate the challenges currently faced by coaches in order to pursue the next level of competition for Aborigine youth football players in terms of external factors in this study which are fitness (sprint and endurance), and game (decision-making and skills execution) performance. Regarding the research instrument, closed-ended was utilized. The questionnaire was also adapted and adopted from Sonpuing (2014) who studied the needs analysis of using English among Thai trainers in Thailand as cited in Kumarin (2019). The questionnaire was divided into four parts as follows:

Part A: Demography

In this part, there are four closed-ended questions. The respondents marked the selected answers in the provided boxes.

The external factors of participation in District-Level Football competitions among Pahang aborigine youth student-players

Part B: General opinion

This part consists of seven closed-ended questions about general opinion. There are seven domains in this part to be answered orbit around language, culture, custom and attitude, coaching styles, training approach, fitness performance, game performance and supportive factors. The questions are 3 Likert-scale rating type represented by the number 1 (easy), 2 (moderate) and 3 (difficult).

Part C: Necessities

Seven domains are the mainstay in this part. The first domain is language that consisted five closed-ended questions. Second domain is cultural, custom and attitude with three closed-ended questions. Third domain is coaching styles comprised three closed-ended questions. Fourth domain is training approach with four closed-ended questions. Fifth domain is fitness performance contained ten closed-ended questions. Sixth domain is game performance included five closed-ended questions and seventh domain is supportive factors with five closed-ended questions. The questions are 5 Likert-scale rating type represented by the number 1 (very unnecessary), 2 (unnecessary), 3 (less necessary), 4 (necessary) and 5 (very necessary).

Part D: Constraints

This part, like the preceding part (C), consists of around seven domains, however, the questions in this section have been altered in terms of constraints that coaches have faced. The questions are 3 Likert-scale rating type represented by the number 1 (easy), 2 (moderate) and 3 (difficult).

Data Collection Procedures

The data have been collected by adhering several procedures. First, the researcher has applied an application in order to get consent letter from Educational Planning and Research Division (EPRD) Ministry of Education Malaysia because the samples are orbit around educators who play their roles as coach at secondary or primary school level. Next, after got the consent letter, the researcher has informed the State Education Department in the study locations about the study with the consent letter from EPRD through a phone call and an email (questionnaire and checklists link). The researcher asked their help officially to disseminate the questionnaire to the associated schools including secondary and primary. Even though this study was focused on Aborigine youth players at secondary schools, the coaches from primary schools were also considered because they have information around the subjects as well. After a week, the researcher sent follow-up reminders to ensure that the targets answered the questionnaire. The researcher gave every target school a phone call and sent an email (questionnaire and checklists link) to do checklists whether they have answered the questionnaire or vice versa. These actions have been repeated until the researcher has adequate samples to do analysis.

RESULTS

The data was analyzed using a statistical technique which is simple descriptive statistical and data was processed with simple statistical computation to analyze all items in the questionnaire orbit around external factors in this study which are fitness (sprint and endurance), and game (decision-making and skills execution) performance. The data was analyzed using statistical descriptive technique and have been processed with the statistical software SPSS STATISTICS Version 23. The data analysis technique comprised frequency in terms of percentage.

Table 1: Necessities findings.

Domains	Very unnecessary	Unnecessary	Less necessary	Necessary	Very necessary
Fitness performance					
To understand how the training method can increase fitness level in terms of cardiovascular	0%	3.20%	3.20%	51.60%	41.90%
To understand how the training method can increase fitness level in terms of sprint	0%	0%	9.70%	51.60%	38.70%
Game performance					
To understand how the training method can increase game performance in terms of appropriate decision making	0%	0%	6.50%	41.90%	51.60%
To understand how the training method can increase game performance in terms of efficient ball passing	0%	3.20%	6.50%	38.70%	51.60%
To understand how the training method can increase game performance in terms of efficient ball receiving	0%	3.20%	9.70%	41.90%	45.20%
To understand how the training method can increase game performance in terms of efficient ball dribbling	0%	3.20%	12.90%	38.70%	45.20%
To understand how the training method can increase game performance in terms of efficient goal scoring	0%	3.20%	6.50%	45.20%	45.20%

DISCUSSION

There are numerous findings can be found through previous studies in the context of Game-Based Approaches (GBAs) on decision-making, skill execution as well as fitness components. Nathan, Ahmad, Boon, Shariff, Madon, & Rasyhid (2013), Nathan & Khanna (2014), Nathan (2015), and Jani et al. (2017) stated that there were improvements regarding game configurations (decision-making and skills execution) by using GBAs for students-players. Sierra-Ríos, Clemente, Rey, & González-Víllora (2020), Cocca, Baca, Cruz, & Cocca (2020), and Syamsuar Syamsuar & Zelhendri Zen (2021) explored studies by using GBAs to increase motivation and students' physical fitness and game performance (decision-making and skill execution). This situation occurred when students or players were given the opportunity to struggle with the snag that had been set up by coaches or teachers. It is noticeable that coaches and teachers should consider more indirect teaching or instructions to give students or players freely freedom to discover the problems that had been structured. Nathan (2012) started the investigation revolved around the usage of the GBA which is the SET pedagogical model for high-skilled, medium-skilled, and low-skilled players in a hockey context. The findings demonstrated that low-skilled players improved significantly at the post-test level in terms of decision-making and skill execution. In the context of Aboriginal youths, there are some hindrances to following all the procedures concerning indirect teaching or instructions because for years they had used to traditional approach. Besides, there are also some issues concerning their custom, culture, and communication to conduct full order of indirect teaching or instructions, especially for low-skilled players. In 2015, Nathan pointed out that indirect teaching or instructions cannot be fully implemented when we have to deal with low-skilled players. There is a need to combine it with the conventional method as well because at some points these students or players will be confused when trying to understand certain skills to be applied in actual games. They wanted to know how certain skills can be performed successfully before their eyes with some examples or demonstrations. Thus, there are big gaps between advanced countries and developing countries such as Malaysia mainly in football. Rina Ambar Dewanti, Beltasar Tarigan & Dian Budiana (2019) stated that the application of sports science needs to be incorporated into the training session to ensure athletes or students-players can be stronger, faster, more powerful, agile and have more resilience to endure physically and psychologically. This statement was proved in their needs analysis study revolved around the physical condition of junior tennis athletes that showed these athletes need specific training by considering the application of sports science during the training sessions. Besides, Bessy Sitorus Pane, James Tangkudung & Abdul Sukur (2020) conducted a needs analysis study on how certain approaches can improve the skills execution of beginner table tennis athletes. Based on the findings there were 86% agreed that multi-ball training was necessary and 91% admitted to be given specialized training distributed multi-ball practice to improve forehand drive skills. These statements showed that we can identify and understand the needs, lacks, and wants of certain things in order to implement efficient training sessions through needs analysis.

Sierra-Ríos et al. (2020) also pointed out that the training sessions by using game-based approaches should be a long-term process to see more advancements in game components and other associated parameters. Nevertheless, Sulong & Jeganathan (2023) also addressed that most of the Aboriginal players in their study were nervous nelli mostly low-skilled players. They were very shy to sound off due to their natural shyness inside them. Thus, the guided discovery by using questions most of the time was retarded. Aboriginal peoples are known for their introverted character (Brown & Fraehlich, 2011). Therefore, one of the solutions has also been taken by the MOE to ensure that the sports talents of Indigenous school students can be identified and highlighted so that those who are talented can be given the opportunity to a higher level through the organization of Indigenous school sports tournament at the national level (KPM, 2011). Through such tournaments, Aboriginal school students have the opportunity to score for the Sports and Co-curricular Activities Assessment (PAJSK) for participation and achievement at the national level (KPM, 2023). This effort is done to provide exposure in phases and continuously so that Aboriginal students will be interested and ready to venture into sports collectively and dream of making the sports field one of their careers and livelihoods one day.

In a nutshell, this study is very crucial to be conducted and it is noticeable that Aboriginal youths can also spur their potential with the best approaches to training. Being cut off from their traditional communities and living in a society that discourages them from participating in the economic or social spheres can be extremely difficult for Aboriginal youth to adjust to. This can have a devastating effect on their sense of cultural identity and self-worth and can also lead to several serious health and social issues, including depression and substance abuse (United Nation, 1995). Finally, caution while dealing with Aboriginal communities in terms of their sensitivities because in fact, they are still left behind revolving around politics, social as well as economic development (Mustapha, Omar, Syed Hassan, Mohammed Yasin, & Mohd Salleh, 2010). Besides, isolation factors have also contributed to the degradation of human capital development among the Aboriginal community. According to Hassan & Ramli (2020), there are four isolation factors in the context of the socio-cultural isolation of Indigenous peoples in Malaysia which are the state of geography, low literacy rate, negative perception among the surrounding community, and stereotypes of Indigenous people. All of these factors have led to the lack of interpersonal skills with the surrounding community. Furthermore, interpersonal skills are rarely found among Indigenous people due to low self-confidence and lack of communication with the surrounding community (Paiz Hassan & Mohd Anuar Ramli, 2020). In this regard, due to the awareness and deep understanding of the need to develop Aboriginal school students holistically including sports, the Ministry of Education (MOE) has established a special plan for them under the Orang Asli and Indigenous Education Transformation in the Malaysian Education Development Plan (2013-2025) (KPM, 2013). As a result of this transformation, various special activities and programs including sports were made available for Aboriginal school children to develop them holistically and prepare them to be able to compete and be competent to face various challenges in the academic, social, economic, and educational fields of the 21st Century and the country towards the Industrial Revolution (IR 4.0). This initiative cannot be done successfully without the support of the authorities, the surrounding communities even their circles.

CONCLUSION

To summarize, the GBAs look to be better applied and implemented in order to improve decision-making, skills execution, and fitness components. It is time to expand the uses of GBAs in the context of the Aboriginal environment to see the effectiveness of GBAs among this vulnerable group. A study conducted by Setiawan and Nopembri (2004) showed that the TGfU model can improve pupils' level of understanding, engagement, motivation, and creativity in the game. Therefore, the TGfU model seems more suitable for concluding components that involve decision-making and problem-solving in defensive situations. Meanwhile, the novel educational model of Style E model (SET) is still in the early phases of development, specially tailored for invasion sorts of game learning to cater to high-skilled, moderate-skilled as well as low-skilled players. Further research should take into account factors that may influence the participation of Indigenous students in the game, such as education level, access to facilities, financial assistance, training, coaching, recognition, incentives, programs, activities, competitions, and collaboration. Aside from that, future research should focus on internal factors as well including language, culture, customs, and attitude. The improvements from the grassroots level are very crucial to be implemented to promote Justice, Equity, Diversity, and Inclusion (JEDI) through GBAs from the very beginning stage which is at the school level mainly for the Aboriginal community. The implementation of unfair policies and discrimination against individuals from marginalized communities (based on factors such as race, gender, language, age, religion, socioeconomic status, ethnicity, nationality, ability, and sexual orientation) has put pressure on physical educators and coaches to broaden the scope of physical education and advance fair and impartial methods (Haneishi, Sheng, Nkala & Boyd, 2023). Therefore, physical educators and coaches need to utilize and embrace JEDI and GBAs as a guide to plan, implement, and evaluate physical education learning that suits the needs, interests, and rights of Indigenous students.

REFERENCES

- Bessy Sitorus Pane, James Tangkudung & Abdul Sukur. (2020). Need Analysis of Multi-Ball Exercise Methods Towards the Improvement of Forehand Drive Skill on Beginner Table Tennis Athletes. *Advances in Social Science, Education and Humanities Research, volume 407* 1st South Borneo International Conference on Sport Science and Education (SBICSSE 2019).
- Brown, J., & Fraehlich, C. (2011). Aboriginal family services agencies in high poverty urban neighborhoods: Challenges experienced by local staff. *First Peoples Child & Family Review, 6*(1), 10-27.
- Cocca, A., Baca, J. E. C., Cruz, G. H. & Cocca, M. (2020). Does A Multiple-Sport Intervention Based on the TGfU Pedagogical Model for Physical Education Increase Physical Fitness in Primary School Children? *Int. J. Environ. Res. Public Health 2020, 17, 5532*; doi:10.3390/ijerph17155532
- Creswell, J. W. (2015). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Pearson.
- Dolores, Ma. & Tongco, C. (2007). Purposive Sampling as a Tool for Informant Selection. *Ethnobotany Research & Applications 5*:147-158 (2007).
- Haneishi, K., Sheng, T. T., Nkala, B., & Boyd, K. (2023). *Promoting Justice, Equity, Diversity and Inclusion (JEDI) through Game-Based Approach (GBA) in Physical Education. In Teaching Games and Sport for Understanding* (pp. 175-185). Routledge.
- Jani, J., Salimin, N. & Shahril, M. I. (2017). The impact of coaching module based on teaching games for understanding towards school netball players' performance. *Journal of Sports Science and Physical Education 6*(2): 81-89, 2017.
- Kementerian Pendidikan Malaysia. (2010). Laporan Tahunan Bahagian Sukan Tahun 2010. Putrajaya. Malaysia.
- Kementerian Pendidikan Malaysia. (2011). Buku panduan dasar 1 Murid 1 Sukan. Putrajaya. Malaysia.
- Kementerian Pendidikan Malaysia. (2013). Pelan Pembangunan Pendidikan Malaysia (PPPM) 2013-2025. Putrajaya: Bahagian Pembangunan Kurikulum.
- Kementerian Pendidikan Malaysia. (2023). Program Pentaksiran Aktiviti Jasmani, Sukan dan Ko-Kurikulum. Putrajaya. Malaysia.
- Krejcie, R.V. & Morgan, D.W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*.
- Kumarin, P. (2019). Needs Analysis English for Football Players. An Independent Study Paper Submitted in Partial Fulfillment of The Requirements for The Degree of Master of Arts in English Language Teaching Language Institute Thammasat University Academic Year 2019. Copyright of Thammasat University.
- Mustapha, R., Omar, M., Syed Hassan, S. N., Mohammed Yasin, R. & Mohd Salleh, N. (2010). Human Capital Development of Orang Asli Youth: Supportive and Suppressive Factors. *Procedia Social and Behavioral Sciences, 7, 592–600*. doi:10.1016/j.sbspro.2010.10.080
- Najib Razak, Zulakbal Abd Karim & Ahmad Hashim. (2020). The source of knowledge of school football teachers influencing football coaching pedagogy: Needs discovered. *International Journal of Academic Research in Business and Social Sciences* Vol. 10, No. 6, June, 2020, E-ISSN: 2222-6990 © 2020 HRMARS
- Nathan, S. & Khanna, G. L. (2014). Quasi experimental exploration of Teaching games for understanding for decision making and skill execution among Indian junior hockey players. *MR International Journal of Applied Health Sciences, 1*(1), 44-51.
- Nathan, S. (2012). Effects of SET Pedagogical Model on Low-Skilled Students in Hockey. *Journal of Sports Science and Physical Education, 1*(1), 58-71.
- Nathan, S. (2015). Coaching school hockey in Malaysia: An exploratory analysis and effect of improvised TGfU pedagogical model on small sided game play. *Journal of Physical Education and Sport, 15*(4), Art 109, pp. 712 - 723, 2015 DOI:10.7752/jpes.2015.04109
- Nathan, S. (2015). Coaching school hockey in Malaysia: An exploratory analysis and effect of improvised TGfU pedagogical model on small sided game play. *Journal of Physical Education and Sport, 15*(4), Art 109, pp. 712 - 723, 2015 DOI:10.7752/jpes.2015.04109
- Nathan, S., Ahmad, H., Boon, O. K., Shariff, A. R., Madon, M. S. & Rasyhid, N. A. (2013). Effect of Teaching Games for Understanding in 5 versus 5 mini game play, cardiovascular fitness, leg power and 30m running speed among Malaysian School elite players. *British Journal of Arts and Social Sciences, 11*(II).
- Noraini Idris. (2013). *Penyelidikan dalam Pendidikan*. Perpustakaan Negara Malaysia.
- Orang Asli Development Department. (2020). Orang Asli Development Department Archive. Kuala Lumpur.
- Paiz Hassan & Mohd Anuar Ramli. (2020). The isolation of the socio-cultural of indigenous community in Malaysia and its effect towards the interpretation of Islam law. *Journal of Fatwa Management and Research*. Julai 2020 vol. 21 no. 1 ISSN: 2232-1047 eISSN: 0127-8886
- Pill, S., Gambles, E. F., & Griffin, L. L. (2023). *Teaching Games and Sport for Understanding, (1th ed)*. New York: Routledge (Taylor & Francis Group).

- Rina Ambar Dewanti, Beltasar Tarigan & Dian Budiana. (2019). Needs Analysis of the Application of Sport Science to Improve Physical Condition of Junior Tennis Athletes. *Advances in Health Sciences Research, volume 11* 3rd International Conference on Sport Science, Health, and Physical Education (ICSSHPE 2018)
- Setiawan, C., & Nopembri, S. (2004). Teaching Games for Understanding (TGfU): Konsep dan Implikasinya dalam Pembelajaran Pendidikan Jasmani. *Jurnal Nasional Pendidikan Jasmani Dan Ilmu Kelohragaian*, 3(1), 1-13.
- Sierra-Rfós, J. V., Clemente, F. M., Rey, E., & González-Víllora, S. (2020). Effects of 6 Weeks Direct Instruction and Teaching Games for Understanding Programs on Physical Activity and Tactical Behaviour in U-12 Soccer Players. *Int. J. Environ. Res. Public Health*, 17, 5008; doi:10.3390/ijerph17145008
- Spencer, J. C. (1993). The usefulness of qualitative methods in rehabilitation: Issues of meaning, of context, and of change. *Archives of Physical Medicine and Rehabilitation*, 74(2), 119-126.
- Sulong, M. N. F., & K. Jeganathan, S. N. (2023). The Effects of TGFU and Set Pedagogical Model on Malaysian Aborigines' Primary Student in Coaching Context. *Jurnal Sains Sukan & Pendidikan Jasmani*, 12(1), 8–19. <https://doi.org/10.37134/jsspj.vol12.1.2.2023>
- Syamsuar Syamsuar & Zelhendri Zen. (2021). Teaching game for understanding model: increasing motivation and students' physical fitness. *JPPPI (Jurnal Penelitian Pendidikan Indonesia)* ISSN: 2502-8103 (Print) ISSN: 2477-8524 (Electronic) Vol. 7, No. 1, 2021, pp. 128-136 DOI: <https://doi.org/10.29210/02021951>
- United Nation. (1995). Indigenous Children and Youth, Leaflet No. 9. Retrieved from <https://www.ohchr.org/sites/default/files/Documents/Publications/GuideIPIleaflet9en.pdf>