Editors Ade Galar Abdullah Asep Bayu Dani Nandiyanto Dan Buhana Cep Uhad Abdulah

# Integrating Science and Technology in Developing Sport and Physical Education

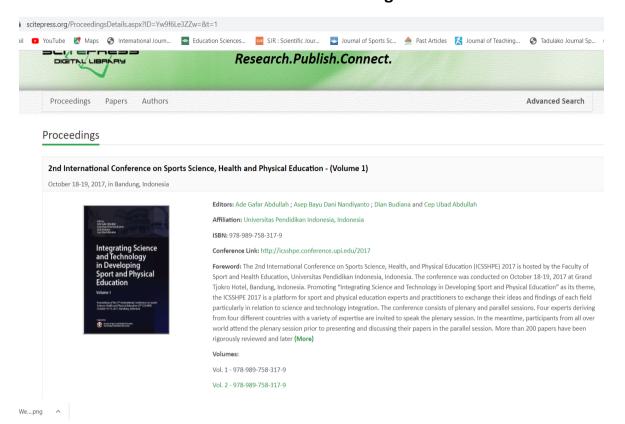
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## The Identification of Talents in Coastal Areas

#### Ngadiman Ngadiman, Suko Wahono, and Munasib Munasib

Universitas Jenderal Soedirman Purwokerto, Indonesia ngadiman.unsoed@yahoo.com

Keywords: Identification, Talent, Area, Coastal.

Abstract: This research aims at identifying the children's sport talents in coastal areas. An observational research

design with a field survey approach is employed. Data collection and analysis is conducted using a Sport Search Method talent test adopted from the Australian Sports Commission (ASC). The research samples are children at the age of 11-15 years old living in the Eastern coastal areas of Nusawungu sub-district, Cilacap Regency. The research results show that based on the testing results, the male group is included in fair category, while the female group is included in poor category. The three main potentials of the children's

talents in the related coastal areas are diving, athletic, gymnastic sport.

### 1 INTRODUCTION

Talent guiding system is one important stage in performance sport development system (Lumintuarso, 2013). Through guiding system and talent development, the new generation of potential talented athletes may have the opportunities to be developed into athletes with numerous achievements in the future. Talent guiding is established as one effort to dig and develop the human resource potentials that national development in the field of sports, particularly in order to optimally obtain various achievements may run effectively and efficiently. states that sport talent detection has become one essential issue (Purnomo, 2014). However, selecting and maintaining talented athletes are not easy. Physical, physiological, cognitive, and sociological factors seem to be interconnected. The number of practices and skills as well as the perceptional and tactical competences is also important (Fernández, 2012).

The procedures in selecting athlete candidates have been found and directed by the sport scientists that they subsequently recommend some potential athlete candidates on certain fields of sport to the trainers. By performing the procedures in selecting athlete candidates, a surprising result may be obtained. Reilly (2000) explains that talent recruitment by employing the holistic multidiscipline approach to identify talents based on the recent findings, has the potential to provide an initial proof to recommend recruitment by considering various attributes when selecting and identifying the new players.

Abbott (2004) suggests that proper supports and practices are greatly essential to meet their potentials. Initial identification of the talented athletes is one important consideration for the researchers and experts. When talented individuals are detected, the important supporting resources, yet limited, may be optimally implemented.

Law Number 3 of 2005 on National Sports System (*Undang-Undang Sistem Keolahragaan Nasional/UUSKN*) article 12 paragraph 1 states that the government has the duty to establish and implement the policy as well as to nationally standardize the fields of sports. The law also explains that the local governments also have the roles to develop the performance sports in their regional areas. Based on those related regulations, the local governments should have paid more attention and be able to manage them in well panned, systematic ways, and professional to make some sports developments by keep focusing on the local potentials and uphold the values of local wisdom.

Through this research, it is expected that the data base related to the talented aspects of the coastal communities in the field of sports may be utilized as the recommendation materials for the sake of formulating policies on the performance sports development to direct the particularly distinguishing sport potentials in certain regional areas.

#### 2 METHOD

This research employs an observational research design with a field survey approach (Moleong, 2004). The research stages consist of data collection obtained through test and measurement, data analysis, interpretation, and recommendation. Besides the determining area-based individual data collection is also greatly necessary to obtain the data related to the components of talent guiding test which is adopted from the Sport Search method (Draper, 1991). The research is conducted in the Eastern coastal areas of Cilacap Regency, precisely in Nusawungu sub-district on May 12-14, 2017. The research samples consist of 25 male and 25 female teenagers at the age of 11-15 years old.

#### 3 RESULTS AND DISCUSSION

The Age distribution of Research Samples conisting of children at the age of 11-15 years old with a total sample of 50 children (25 males and 25 females) may be seen in the following diagram.

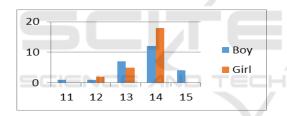


Figure 1: Age Distribution of the Research Samples.

Meanwhile, the distribution of talent identification results conducted using a Sport Search method consisting of six testing items namely: tennis ball throwing and catching /eyes-hands coordination test, vertical jump, Basket Ball Throw, Shutle Run/SR, 40-meter sprint, and cardio vasculer (MFT, with the category of very good (5), good (4), fair (3), poor (2), and very poor (1) may be seen in diagram 2 below:

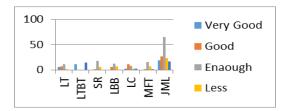


Figure 2: Distribution of talent Identification Testing results for Male Children.

Of 25 male samples, the testing results on vertical jump (lompat tegak/LT), that is, a test to measure the power of leg muscle, show that 6 (24%) male children are categorized into very good, 7 (28%) male children are good, 11 (44%) male children are fair, and 1 (4%) male child is poor. The testing results on tennis ball throwing and catching (lempar tangkap bola tenis/LTBT), that is, a test to measure the eyes-hands coordination competence, show that 11 male children (44%) are categorized into very good, while the other 14 (56%) male children are very poor. The testing results on Shuttle Run/SR (lari kelincahan) show that 1 (4%) male child is categorized into good, 18 (72%) children are fair, and 6 (24%) children are poor. The testing of Basketball throw (lempar basket/LBB), that is, to measure the power of arms show that 6 (24%) male children are categorized into good, 12 (48%) male children are fair, and 7 (28%) male children are poor. The testing results of 40 m sprint (lari cepat [LC] 40 meter)show that 2 (8%) male children are categorized into very good, 11 (44%) male children are good, 8 (32%) male children are fair, 2 (8%) male children are poor, and 2 (8%) male children are very poor. Meanwhile, the testing results of Multistage Fitness Test (MFT), that is, a test to measure the cardiovasculer endurance, show that 1 (4%) male child is categorized into good, 16 (64%) male children are fair, 7 (28%) poor, and 1 (4%) is very poor. From the aforementioned data above, it shows that the testing result average is at the category of fair.

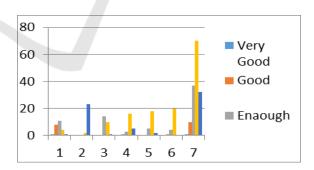


Figure 3: The Distribution of Talent Identification Testing Results for Female students.

Of 25 female samples, the testing results on vertical jump (*lompat tegak*/LT), that is, a test to measure the power of leg muscles show that 1 (4%) female children are categorized into very good, 8 (32%) female children are good, 11 (44%) female children are fair, and 1 (4%) female child is poor. The testing results on tennis ball throwing and catching (*lempar tangkap bola tenis/LTBT*), that is, a

test to measure the eyes-hands coordination competence show that 2 (44%) female children are categorized into poor, while the other 23 (98%) female children are very poor. The testing results on Shuttle Run/SR (lari kelincahan) show that 14 (56%) female children are categorized into fair, 10 (4%) female children are poor, and 1 (4%) female child is very poor. The testing results of Basket ball throw (lempar bola basket/LBB), that is, to measure the power of arms, show that 1 (4%) female child is categorized into good, 3(12%) female children are fair, 16 (64%) female children are poor, and 5 (2%) female children are very poor. The testing results of 40 m sprint (lari cepat [LC] 40 meter), show that 5 (20%) female children are categorized into fair, 18 (72%) female children are poor, and 2 (8%) female children are very poor. Meanwhile, the testing results of Multistage Fitness Test (MFT), that is, a test to measure the cardiovasculer endurance, show that 1 (4%) female child is categorized into good, 4 (16%) female children are fair, and 20 (80%) female children are poor. From the aforementioned data above, it shows that the testing result average is at the category of poor.

Due to the results of data analysis conducted using the Application Program of *Sport Search Method* it is obtained that the talent potentials on the recommended top ten priority sports may be seen in diagram 4 below:



Figure 4: The Result of the Recommended Ten Best Sports for Male Children.

The figure 4 above shows that the recommended ten best sports for male children are :15 (60%) male children for diving sport, 13 (52%) male students for athletic sports, especially jumping, 12 (48%) male children for athletic sports, especially sprint, 11 (44%) male children for hurdle, 9 (36%) male children for gymnastic sport, 5 (20%) male children for heavy lifting, 5 (20%) male children for trampoline sport, 4 (16%) male children for shooting sport, and 4 (16%) male children for racket sport.

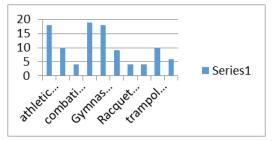


Figure 5: The Result of the Recommended Ten Best Sports for Female Children.

The figure 5 above shows that the recommended ten best sports for female children are: 19 (76%) female children for diving sport, 18 (72%) female students for high jumping sport, 10 (40%) female children for long jumping sport, 10 (40%) female children for trampoline sport, 9 (18%) female children for heavy lifting sport, 6 (24%) female children for heavy lifting sport 4 (16%) female children for racket sport, 4 (16%) female children for shooting sport,4 (16%) female children for group sports.

The above results show that the most recommended sport is diving. It is considered possible as the dominant condition components in diving sport are due to the length of legs, lung capacity, maximum oxygen volume, and torso flexibility. The talent guiding model developed by Australian Sports Commission (ASC) is a unique and innovative approach to direct children at the age of 11–15 years old in determining their most appropriate types of sport. Sports search is an interactive computer package which may direct the children to specify their most appropriate types of sport. This sport guiding program may be intended to the athletes' (children's) movement ability and fitness profile as well as the right information to help children in determining the types of sport appropriate to their potentials. Thus, a trainer may direct his/her students' interest more positively.

#### 4 CONLUSION

Based on data analysis, it can be concluded that the best ten sports which are potential for the children at the age of 11-15 years old in the coastal areas are diving, athletics especially for jumping, sprint, hurdle, gymnastics, shooting, heavy lifting, self-defense, trampoline, and group sports. The greatest sport potential for children at the age of 11-15 years old in coastal areas is diving.

#### REFERENCES

- Abbott, A., Collins, D. 2004. Eliminating the dichotomy between theory and practice in talent identification and development: considering the role of psychology. *Journal of Sports Sciences*, 22(5) 395-408.
- Fernández-Río, J., Méndez-Giménez, A. 2012. The role of physical education on sport talent detection: a proposal. *Journal of Sport and Health Research*, 4(2), 109-118.
- Draper, Minikin., Telford. 1991. The Laboratory Standards Assistance Scheme of The National Sport Research Centre, Australian Commission.
- Kemenpora, 2009. Panduan Tata Kelola Lembaga Keolahragaan Nasional. Jakarta: Kemenpora.
- Lumintuarso, R. 2013. Pembinaan Multilateral Bagi Atlet Pemula. Pedoman Latihan Dasar Atlet Muda Berprestasi. UNY: Press.
- Moleong, Lexy, J. 2004. *Metodologi Gabungan Kuantitatif/Kualitatif dan Analisis Data*. Jakarta: Fakultas Kesehatan Masyarakat, Universitas Indonesia.
- Purnomo, A. 2014. Model Pengembangan Pemanduan Bakat Olahraga Panahan Pegawai Tetap Pada Kementrian Pemuda Dan Olahraga Republik Indonesia. *Journal of Physical Education Health and Sport*, 1(1), 28-34.
- Reilly, T., Williams, A. M., Nevill, A., Franks, A. 2000. A multidisciplinary approach to talent identification in soccer. *Journal of sports sciences*, 18(9), 695-702.,
- Undang-Undang Nomor 3 Tahun 2005 Tentang Sistem Keolahragaan Nasional.