DEVELOPMENT OF POLARIZATION OF DATA PROCESSING TALENT SCOUTING TEST OF ANDROID-BASED VOLLEYBALL SPORTS

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ABSTRACT

The multiplication of sports talent is an early part in the coaching of each sport. Volleyball talent scouting test instruments are needed in the early stages of coaching so that no mistakes occur in the future. This research aims to develop a model of data processing test guidance and development of sports talent volleyball based on android. The research was conducted using research and development methods. Focus group discussion was conducted by involving 15 volleyball material experts and 3 media experts. As for the large sample using 10 volleyball experts and 3 IT experts who. The results of the study based on the assessment of material experts and media experts by 96% and 96.79% are very good categories. Field trials with population are children aged 12 - 14 years and a sample of 60 people (30 sons and 30 daughters). Based on the results of effective and efficient test products of 91% worth to use and no need for revision. The conclusion of this study is that android-based test and development of volleyball talent can be used in identifying the power of volleyball sports.

Keywords: talent scouting, volleyball, application, android.

I. INTRODUCTION

The process of scouting talent or also called the identification of talents in sports is one part of the process of breeding sports. Talent scouting or talent identification process is the process of characterizing the basis of a person's ability brought from birth to be able to underlie sports skills (Mansur, 2011) statesthat in western countries, scouting talents or identifying talents of prospective athletes is not a new concept in the field of sports, although the implementation has not been done formally. Conventional scouting is often done based solely on how coaches get fast champion athletes. This is similar to the writing of SitiMusliha Mat-Rasid, et.al (2019) who said "oneof the identified influences is the pressure experienced by coaches to maintain their profession and career goals, it is an external factor when making decisions such as peers, parents, and pressure to choose players quickly get a champion". The results of a study conducted by NenadRogulj, et. al. (2009) show that evaluation methods based on expert opinion and the proposedfuzzy approach are able to recognize sports suitable for individuals tested based on their morphological characteristics and that future development of expert systems for the introduction of athletes' morphological compatibility has real prospects. Based on the above opinion concluded by LaluErpanSuryadia (2019) that to know the talents of school students need to be identified with good and effective sports talent. According to Jim Brown (2001) that future success can not only be predicted by putting young players through a series of tests and calculating scores, but young players should be introduced to competitive tests and compared to existing elite athletes as a form of evaluation. Jim Brown further stated that volleyball is an interest and skill gained, the sport has not been intended for children because the sport is too complex and too demanding to be played by very young children.

Volleyball is one game that uses big balls. How to play volleyball by hand by being hit. The ball is bounced past above the net or the net, with the intention of being able to drop the ball inside the opponent's field of play in search of victory inplay (Compass,2020). volleyball role is no longer just as a recreational sport, but has evolved into part of educational sports and sports achievements or sports matches. Volleyball is an Olympic team sport

where two teams consist of 6 active players, each team is separated by a net. Each team tries to make a point by dropping the ball onto the opponent's field organized under the rules. Volleyball is one of the sports of the game that many fans. According to Miguel Silva et.al (2014) that volleyball is a show of different skills shown in volleyball matches (serving, blocking, attacking, reception, setting, and), this proves that the team that makes the least mistakes has the least chance of winning the game. To be able to do a game of volleyball then master the basic techniques that sliputi passing, service, smash and block.

Industrial Revolution 4.0 is a change in where to produce an item, utilizing machinery as a driving force and process. This industrial revolution is here to answer the problem of effectiveness and efficiency in producing an item. Where time is vital in the industrial world. Besides the benefits of industrial revolution 4.0 to the field of industry, the benefits of technology can also be felt by everyone. The development of coaching knowledge obtained through research is constantly changing and coaches must dare to experiment with scientific approaches to gain new knowledge in develop his career as coaches. Not only that, coaches must master deeply about various knowledge in training. Coaches who are knowledgeable become a must to be able to compete with other coaches in order to always be the best in helping sportsmen achieve success. Exercise is one of the processes carried out systematically and continuously by increasing the amount of burden to improve the performance of sportsmen in achieving the goals that have been set (Imran Ahmad, 2013). Exercise is also an effort to improve the functional quality of the organs of the body as well as the psychic of the perpetrator. Therefore, the exercises that are done must be arranged and done appropriately and correctly in accordance with the goals that want to be achieved. Further discussing the theory of this exercise can contain several meanings in English namely *practice, exercise,* and *training* (Sukadiyanto, at al. 2011).

The development of technology has led mankind to the era of industrial revolution. According to the *Cambridge English Dictionary, "Industrial Revolution* is the period of time during which work began to be done more by machines *infactories than by hand at home".* Currently the industrial revolution in Indonesia is in the third stage and began to move to phase four or better known as the Industrial Revolution 4.o. According to English sociologist David Hervey in Budi P Doni, thethird industrial revolution has to do with compressing space and time being made increasingly distanceless. The invention of digital technology and the internet makes the communication space and information flow as if it is unstoppable across the distance of territory and time. Application software is a subclass of computer software that utilizes the ability of the computer directly to perform a task that the user wants. This reinforced Javier's opinion Peña (2013) that computerized systems have created the possibility to implement a standard evaluation program to generate and exchange information without the need to codify, read, or understand the main problems. It is usually compared to system software that integrates various computer capabilities, but does not directly apply those capabilities to perform a task that benefits the user. The use of android with the development of the times makes human work easier, according to the results of David Barrera's research (2010) which shows some discussions that identify potential points of improvement for the Android permission model that try to increase expressiveness if needed without increasing the total number of permissions or overall complexity. The back-up operation involves the exchange of information between the computer requesting the information, called the client, and the computer supplying the information (or so-called server) (J. Winardi, 2007).Applications using android in general facilitate human work, this is in accordance with the results of research Daniel Luchaup. et.al. (2016) by utilizing the android app we concluded substantially more precisely than the previous work. The analysis is efficient, on average it takes two minutes per application. Although this work can be used as the basis for many program analysis of the overall Android application, the COAL solver can also be used to deduce the value of composite objects in many other contexts.

II. RESEARCH METHODS

This research uses research and development approach (Borg and Gall: 1989) in sugiyono (2011) or development research grouped in 3 stages, i.e. (1) Before development includes; analysis of needs and preparation of model documents, (2) Development phase includes, development of volleyball talent scouting application model through FGD, followed by small sample trials, large group trials and (3) Application phases include; implementation of volleyball talent scouting application model to research samples of children aged 12 - 14 years. *Focus group discussion* (FGD) was conducted by involving 10 volleyball material experts and 3 media experts.

III.   RESEARCH RESULTS

The test results were conducted on 10 volleyball coaches as material experts and 3 people as media experts. This section is conducted a trial of the revised application based on the results of the questionnaire given to a small group.

1) assessment material experts against android-based data processing applications

The assessment questionnaire by material expertson the development of data processing tests guiding sports talent achievement volleyball athletes based on android has 12 points of statement. The effectiveness of the development of test data processing can be seen based on percentage in the following calculations:

Tabel 1. Android-Based Data Processing Application Materials Expert Assessment

Rating Indicators	Poll Value	Ideal Score	Percentage Effectiveness
Implementation of Tests and Data Processing	114	120	95%
Physical Measurement	387	400	97%
Overall Indicators	**501**	**520**	**96%**

Based on the table above the value of the poll 501 with an ideal score of 520 with percentage effectiveness of 96 %. In other words, the application used is already feasible to use and marketed to the public.

2) assessment media experts against android-based data processing applications

The test was conducted on 3 IT and Media experts. This stage media experts conduct evaluations and assessments of applications that have been made. The assessment of the development of data processing tests guiding sports talent achievement of volleyball athletes based on android has 12 points of statement. The results of the assessment can be seen as follows:

Tabel 2Assessment of Android-Based Data Processing Applications by Media Experts

Rating Indicators	Poll Value	Ideal Score	Percentage effectiveness
Implementation of Tests and Data Processing	35	36	97,22%
Physical Measurement	116	120	96,66%
Overall Indicators	**151**	**156**	**96,79%**

Results based on tests and data processing achieved a score of 35 with an ideal score of 36, so that the percentage of achievement was obtained 97.22%. Based on physical measurements achieved a score of 116 with an ideal score of 120 so that obtained percentage of 96.66%. While the overall indicator score obtained 151 with an ideal score of 156 so obtained percentage 96.79%. Based on the results of the achievement of assessment 96.79% can be concluded that the application used is eligible for use and marketed to the public.

Table 3Observations and Recommendations from IT and Media Experts

Expert Name	Indicators	
	Data Test & Processing Implementation	Physical Measurement
Wais. St.	Lighting adjustment required	Narrative Improvement in implementation
SaprilLubis, ST.	Lighting needs to be adjusted	Execution narrative sequence
IhwanAsri, M.Si.	Lighting	Lowest age-appropriate sorting

The results of the study based on the assessment of material experts obtained the results of 96% categorized as good while based on the assessment from media experts obtained the results of 96.79%. Field trials with a population are children aged 12 - 14 years and a sample of 60 people (30 sons and 30 daughters). Based on the results of effective and efficient test products of 91% worth to use and no need for revision.

IV.   DISCUSSION

Based on the results of the field trials and the results of the discussion of researchers, get a conclusion that an application is required to process data processing of android-based volleyball tests so that the process of coaching volleyball sports will be more effective and efficient. Coachescansee the potential of athletes being nurtured and this will have an impact on more appropriate coaching along with sustainability coaching. The scouting of volleyball was built as an effort to explore and develop the potential of human resources, so that national development in the field of volleyball, especially in an effort to achieve optimal achievement can take place correctly, effectively and efficiently. Scouting is not as easy as imagined, even in countries that have progress in the field of sports, the talent scouting system is still not standard. A talent scouting system is still very difficult to prove in the future, although there are some countries that have successfully developed a talent scouting system and scored good sports achievements after many years of using the system. In realizing the efforts as referred to above, a scouting guideline is required that can be used as a handle or guideline for all relevant parties, so that the process or mechanism of scouting can take place efficiently and effectively.

V.   CONCLUSION

Efforts to scout the talents of volleyball in Indonesia is still very limited and need to be realized together considering the large number of human resources, there are still many superior seeds buried in it. Therefore, it is necessary to be excavated and created effective and efficient methods in order to be used easily, especially in supporting the branch of volleyball sports that are prioritized through talent scouting programs from an early age. With these efforts, for children and adolescents who have hidden talents in the sport of volleyball can get the opportunity to be developed so as to achieve the highest level of achievement. This can be started from schools, sports clubs, sports schools or sports schools through an intensive, comprehensive and sustainable program of scouting

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