Content Validity with Aiken's V for Pencak Silat Talent Identification Test

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Keywords: Talent Identification Test, Pencak Silat.

Abstract: The purpose of this study is to develop a talent identification test for pencak silat. Content validity is used to test the instrument. The testing was done by using professional judgment by involving experts in the field of learning and pencak silat training. The analytical technique used is the validity coefficient of Aiken (V) to determine the relevance of each content of the test. This study used nine experts with the assessment scale ranging from 1 to 4 with criterion 1(irrelevant), 2 (less relevant), 3 (relevant), and 4 (very relevant). There are sixteen test items from the test that are assessed by the experts. The value of validity coefficient of Aiken's V for the pencak silat talent identification test was 0.82 to 0.89.

1 INTRODUCTION

The sports coaching system in Indonesia is depicted in a sports building that places the coaching of potential and early childhood talents as the main foundation. Further coaching is carried out in a systematic, tiered and sustainable manner so as to achieve high performance. Early childhood development is carried out by fostering potential and talent as the main foundation. The next guidance is done continuously. Each stage reaches a higher level so it is expected to achieve high performance in the end.

The target of talent development of potential national athlete is potential athlete. It is defined as a candidate for athletes who are proven scientifically and factually who have prospects to be developed to achieve international achievement through tiered and sustainable coaching. The principle of coaching is based on the principle of long-term athlete coaching. The parameter of successful talent development of national flagship athlete candidate is the identification of talent candidates of national flagship athlete.

The scope of the development of top national athletes aspiring talent involves scientific and systematic effort to condition and empower prospective talented athletes in order to qualify as the top national athletes. Developing talent of athlete

candidates from an early age should systematically use science and technology approach to science.

To be able to exercise maximal needs to be supported by many factors, including the main factor which is talent. Success in sports (especially teams) is the result of a complex interaction of various variables, therefore becoming a champion is unlikely to neglect one of these aspects, namely individual talent (McGregor, 2008). Within the sports perspective, there are two assumptions used in assessing sports giftedness, namely: (1) in a given population, there will be at most 15% of individuals who have talent in sports, the rest are less talented, (2) all members or individuals in a population actually has talent, it's just that not all individuals have enough accurate information about their potential to certain sports branches.

The study of the development of sports technology has an impact on the achievement sports development system, especially on predictions in terms of physical and physiological abilities that can be prepared early on for potential athletes. Physical abilities and physiological functions can be predicted according to the science of motion development and movement learning and physiology. The studies of science that support the candidates can be prepared as potential athlete as early as possible effectively and efficiently.

Observations in various international sports competitions indicate that certain athletes are suitable for certain sports. It has the necessary psychological

and mental characteristics. It has a reliable physical potential. It has good technical skills and tactics. It has experience in various competitions that can achieve high achievement. This kind of sports achievement will be achieved by developing prerequisite aspects of childhood and youth. Athlete can reach the peak of achievement, if he starts practicing for sports that have been guided by talent from the start and supported by the capacity of good public sports performance (Furqon, 2002). This suggests that the presence or appearance of elite athletes is always closely linked to prospective athletes who have more ability that can underlie related sports skills.

In an achievement sports coaching system, an athlete recruitment is an important step to ensure the optimal performance. The recruitment system is the beginning of the sport coaching plan of achievement. In a recruitment system, there are stages of selection and determination of candidate athletes who meet all the requirements and criteria that have been determined. Talent scouting efforts for prospective athletes in Indonesia have not been maximized. Adequate human capital has not been fully utilized in sports performance enhancement. With the number of human resources, many assumed that a lot of seeds are also buried in it. There needs to be an effort to find these superior seeds. Early identification and talent development programs should be implemented to create opportunities through existing sports, especially those that support prioritized sports attractiveness. With these efforts for children and teenagers who have a hidden sporting talent, it gets the opportunity to be developed so as to achieve the highest achievement.

2 METHODS

Nine experts in the field of learning and pencak silat training become validators to validate the talent identification test of pencak silat sports. The nine experts assess or validate the draft of the talent identification test of pencak silat sports using a scale of 1-4 from Likert. Assessment is carried out on the sixteenth item of the talent identification test of pencak silat. The sixteen grains are divided into 3 main factors: (1) anthropometric measurement factors, (2) physical or biomotor measurement factors, and (3) basic motion in pencak silat factors.

Validation was done using analytical techniques from Aiken (V) (1985). Aiken uses the calculation formula $V = S / [n (c-1)]$, where V is the value of the validity coefficient of Aiken. S is the value of the

rating scale minus 1. n is the number of assessors or experts used in the validation. c is the highest score in the rating scale.

Below is table 1, the table value of the validity coefficient should be compared with the value of the calculated coefficient of validity. If so, the calculated coefficient of validity value is higher than the value of the table validity coefficient of Aiken then the item is declared valid.

Table 1: Table of validity coefficient values from Aiken (Aiken, 1985).

TABLE 1
Right-Tail Probabilities (p) for Selected Values of the Validity Coefficient (V)

No. of Items (m) or Raters (n)	c=2 V	p	c=3 V	p	c=4 V	p	c=5 V	p	c=6 V	p	c=7 V	p
2							1.00	.040	1.00	.028	1.00	.020
3							1.00	.008	1.00	.005	1.00	.003
3			1.00	.037	1.00	.016	.92	.032	.87	.046	.89	.029
4					1.00	.004	.94	.008	.95	.004	.92	.006
4			1.00	.012	.92	.020	.88	.024	.85	.027	.83	.029
5			1.00	.004	.93	.006	.90	.007	.88	.007	.87	.007
5	1.00	.031	.90	.025	.87	.021	.80	.040	.80	.032	.77	.067
6			.92	.010	.89	.007	.88	.005	.83	.010	.83	.008
6	1.00	.016	.83	.038	.78	.050	.79	.029	.77	.036	.75	.041
7			.93	.004	.86	.007	.82	.010	.83	.006	.81	.008
7	1.00	.008	.86	.016	.76	.045	.75	.041	.74	.038	.74	.036
8	1.00	.004	.88	.007	.83	.007	.81	.008	.80	.007	.79	.007
8	.88	.035	.81	.024	.75	.040	.75	.030	.72	.039	.71	.047
9	1.00	.002	.89	.005	.81	.007	.81	.006	.78	.009	.78	.007
9	.89	.020	.78	.032	.74	.056	.72	.038	.71	.039	.70	.040
10	1.00	.001	.85	.005	.80	.007	.78	.008	.76	.009	.75	.010
10	.90	.001	.75	.040	.73	.012	.70	.047	.70	.059	.68	.048
11	.91	.006	.82	.007	.79	.007	.77	.006	.75	.010	.74	.009
11	.82	.033	.73	.048	.73	.029	.70	.035	.69	.038	.68	.041
12	.92	.003	.79	.010	.78	.006	.75	.009	.73	.010	.74	.008
12	.83	.019	.75	.025	.69	.046	.69	.041	.68	.038	.67	.049
13	.92	.002	.81	.005	.77	.006	.75	.006	.74	.007	.72	.010
13	.77	.046	.73	.030	.69	.041	.67	.048	.68	.037	.67	.041
14	.86	.006	.79	.006	.76	.015	.73	.008	.73	.007	.71	.009
14	.79	.029	.71	.035	.69	.036	.68	.036	.66	.050	.66	.047
15	.87	.004	.77	.008	.73	.010	.73	.006	.72	.007	.71	.008
15	.80	.018	.70	.040	.69	.032	.67	.041	.65	.048	.66	.041
16	.88	.002	.75	.010	.73	.009	.72	.008	.71	.007	.70	.010
16	.75	.038	.69	.046	.67	.047	.66	.046	.65	.046	.65	.046
17	.82	.006	.76	.005	.73	.008	.71	.010	.71	.007	.70	.009
17	.76	.025	.71	.026	.67	.041	.66	.036	.65	.044	.67	.039
18	.83	.004	.75	.006	.72	.007	.71	.007	.70	.007	.69	.010
18	.72	.048	.69	.030	.67	.036	.65	.040	.64	.042	.64	.044
19	.79	.010	.74	.008	.72	.006	.70	.009	.70	.007	.68	.009
19	.74	.032	.68	.033	.65	.050	.64	.044	.64	.040	.63	.048
20	.80	.006	.72	.009	.70	.010	.69	.010	.68	.010	.68	.008
20	.75	.021	.68	.037	.65	.044	.64	.048	.64	.038	.63	.041
21	.81	.004	.74	.005	.70	.010	.69	.008	.68	.010	.68	.009
21	.71	.039	.67	.041	.65	.039	.64	.038	.63	.045	.63	.045
22	.77	.008	.73	.006	.70	.008	.68	.009	.67	.010	.67	.008
22	.73	.026	.66	.044	.65	.035	.64	.041	.63	.046	.62	.049
23	.78	.005	.72	.007	.70	.007	.68	.007	.67	.010	.67	.009
23	.70	.047	.65	.048	.64	.046	.63	.045	.63	.044	.62	.043
24	.79	.003	.71	.008	.69	.006	.68	.008	.67	.010	.66	.010
24	.71	.032	.67	.030	.64	.041	.64	.015	.62	.041	.66	.046
25	.76	.007	.70	.009	.68	.010	.67	.009	.66	.009	.66	.009
25	.72	.022	.66	.033	.64	.037	.63	.038	.62	.039	.61	.049

3 RESULT AND DISCUSSION

Talent can be described as potential in a field in superior quality. With this level of superior quality is expected to have a great opportunity to achieve high achievement and prominence in the field. Giftedness has a sense with the term talent. Gifted and giftedness means that there is one or more advantages in a person that makes the person show the advantages of being different from others. Having superior potential is expected to have a great opportunity to achieve high achievement and prominence in the field. The manifestation of giftedness is in the form of high

achievement, therefore talent can also be understood to have a high chance of achieving high achievement.

Gifted children are children who are able to achieve high achievement because they have superior abilities. These abilities both potential and tangible including general intellectual abilities, special academic abilities, creative-productive thinking skills, leadership abilities, abilities in one field of art, and psychomotor abilities. From the above description, gifted children can be defined as those who potentially have the ability to achieve high achievement in a particular field (Munandar U,1982).

Sports talent has an understanding of the potential that someone has for high achievement in certain sports activities or branches. Giftedness in sports includes special elements consisting of: (a) special sports abilities. (b) sports-specific creativity; and (c) specific attachments to the task. Sports talent is a special ability that appears from certain components that athletes must possess in order to perform optimally. Talented athletes are those who have special potential to be able to thrive in supporting the success in sports. The special abilities possessed have been formed and can be realized through appropriate coaching. Special abilities in the concept of sports talent are related to the internal factors of the athlete. The results of the Cratty study, explaining that the internal factors of athletes that support giftedness are: (a) biological structural factors. (b) social factors. (c) physiological factors. and (d) psychological factors (Gunarso, S. D. (1992).

Mastery of sports skills occurs through the learning process. Sooner or later the process of mastery skills is a central theme in sports talent. Giftedness is identical to learning characteristics and learning abilities. Gifted children are those who have the ability to learn quickly in a particular field. The success of a child to achieve a prominent achievement is determined by his intellectual ability, the level of knowledge he has, and the level of skill he has mastered to apply the knowledge he has in the field of sports he pursues. There are questions that arise. It can be predictable potential of children today to be a benchmark for the achievement of high achievements that can be achieved later in adulthood? From these questions it is necessary to find a set of tools to find gifted children who can measure the future heights in the future with a high probability.

Identification of sports talent is an attempt made to estimate the chances of talented athletes in sports achievement, to be successful in undergoing training programs so as to achieve peak performance (Soegiyono, 2000). There are various formulations of sports talent scouting purposes that have been written by experts, especially by practitioners whose daily lives that have been in the world of sports talent identification. Sporting talent as a potential possessed by a person to excel in certain sports activities or branches. The purpose of sports talent identification, according to him, emphasizes the identification of sports talent, with reference to the suitability of potential and interest of athletes (Gunarsa S.D,1992). Formulation of other sports talent identification objectives expressed in the national forum of the Indonesian sports scholar association that is the identification of sports talent aims to predict with high probability, about how much a person's chances to successfully achieve maximum performance. Prediction is taken by looking at indicators of giftedness: (a) achievement or performance that has been achieved atltet. (b) the tempo of achievement improvement. (c) the level of stability in the improvement of achievement; (d) the tolerance of the training load. (e) have a positive intrinsic motivation. The emphasis of sports talent identification objectives in the formula lies in the effort to predict athletes' odds on the basis of sporting indicators of sports athletes have (Harsono, 2002).

Some principles of sports talent identification can be used as a guide for the process of talent scouting. The principle of talent identification needs to be elaborated and understood, so that each step of the talent identification process can reach its destination. Principles of talent incorporation which include: (a) conducting a complete analysis of the physical and mental condition of the athlete. (b) performing selection based on key determinant factors including: anthropometric characteristics, such as height and relation to certain physical parameters; several physical abilities such as speed, endurance, coordination, and ability to play. (c) conducting evaluation and selection based on data: children's attitudes toward sports, children's participation in sporting activities, and the benefits and characteristics of children's sports achievements (Harsono, 2002).

Achievement sports require a special biological profile by understanding the features of biomotor capabilities and strong psychological characteristics. The main criteria in talent identification include: health, biomotoric quality, heredity, and supported by sports facilities, climate and expert availability (Bompa, 1990). In line with that opinion, identification of sports talent include: (a) biological aspects including the body's basic potential or ability, organ function, and posture and body structure. (b) the psychological aspect which includes intellectual, motivational, personality, and nerve work. (c) age which includes chronological age and age

psychologically. (d) offspring. and (e) environmental aspects (Furqon, 2002).

The success of the talent development program is the support that provides the right assistance and encouragement to all individuals who are at all levels of coaching. The development of talent of national athlete candidates is done with the application of science and technology in sports science field. Furthermore, to realize a good talent development environment must have a steady coaching system. Some important aspects for talent development, namely: (a) the mechanism of steps that can be managed clearly, this mechanism must be understood by trainers, athletes, administrators, and the government. (b) adequate quality and number of trainers. (c) adequate organizational and financial support. (d) availability of facilities for training and competitions. and (e) utilization of sports science support.

In line with the aspect of sports talent development, there are 5 important in initiating the development of sports talent, namely: (a) preliminary study. (b) planning. (c) evaluation and. (d) learning (Mc. Elroy,1986). One's talent in sports is an ability that is related to one's attitude and shape. Implementation of talent identification can be done with the following steps as follows:

a. Conducting a complete analysis of physical and mental conditions in accordance with the characteristics of the sport,
b. Conducting general and special selection using instruments of the sport concerned,
c. Performing selection based on anthropometric characteristics and physical abilities, and adapted to the phases of physical development.
d. Evaluating based on comprehensive data with attention to every child on the sport in the water and out of school.

4 CONCLUSIONS

The value of the Aiken V validity coefficient for test identification for the lowest pencak silat branch is 0.82 and the highest is 0.89. A form of talent identification test is obtained as follows:

1. Anthropometry
   a. Height
   b. Height in sit down position
   c. Weight
   d. Arm Range

2. Psychomotor
   a. Sit and Reach
   b. Standing broad jump
   c. Sprint 30m
   d. Throw and catch tennis ball
   e. Throw basketball ball
   f. Shuttle run
   g. Multistage run (Bleep test)

3. Basic motion in pencak silat
   a. Punching
   b. Kicking

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