

# Validity and Reliability of Instruments for Talent Guidelines in Karate Sports

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Abstract. Study This aim For developing a guiding instrument karate talent and search the validity and reliability of the developed instrument. The sample used in study This is purposive sampling. The instrument used distributed questionnaires \_ to 5 experts karate sport. Research results conclude From the results calculation use Aiken V's formula concludes that the value obtained each item is >80, then can concluded that validity instrument scouting karate talent enters criteria validity high and very high From the results of the reliability test anthropometry obtained Cronbach's Alpha value of 0.938, reliability test results biomotor obtained Cronbach's Alpha value of 0.849 and the results of the reliability test test Skills obtained Cronbach's Alpha value is 0.849.

Keywords: instrument, guide talent, karate.

## 1 Introduction

#### 1.1. Main Issues

Talent is a person's capacity from birth, which also means a latent ability possessed by a person as the basis of his real ability [1]. A person's talent in sports is a basic ability related to the appearance of motion and a combination of several abilities related to a person's attitude and body shape [2]. Talent identification is often interpreted as the process of looking for gifted children for certain sports which, when trained regularly and programmed expected to achieve the highest achievement [3]. Talent tracking can be carried out with tests or measurements that have been prepared and tested. The test is a parameter made to predict the quality of achievement, taking into account the level of physical fitness, the ability to learn movement and the physical development that the child currently has. According to Louzada et al.,[4] talent identification is screening children and adolescents using certain physical, physiological and skill tests to identify their potentials, in order to be successful in the selected sports activity. Identification of sports talent is an important step that serves as the foundation for the success of the sports achievement development system [4]. The success or failure of the achievement sports achievement development system is strongly influenced by the talent identification process that is carried out. Errors in the talent identification process will result in loss of achievement or stunted athlete regeneration. Errors in identifying talent can also

result in failure in the process of fostering sports achievement, athletes will also experience difficulties in trying to achieve optimal performance [6]. The main goal of talent scouting is to identify and select potential athlete candidates, having a type of sport that suits their potential and interests and estimating their chances of succeeding in a coaching program so that they can achieve maximum performance in certain sports [7]. When viewed from the point of view of achievement, the success of an athlete in achieving achievements is influenced by two factors, namely intrinsic factors and extrinsic factors. Intrinsic factors are the qualities of athletes that arise from within the athlete or often referred to as internal factors, namely athletes have innate talent according to certain sports so that they are easier to train to achieve peak performance [8].

Whereas extrinsic factors are supporting factors for athletes to lead athletes to peak performance [9]. The multilateral development stage is placed at the beginning of the coaching program before entering the specialization stage, namely in children aged: 6-15 years, aims: to develop and correcting basic movements (walking, running, jumping, jumping, catching) [10]. Training activities in the form of all kinds of sports and play activities that contain walking, running, jumping, jumping, climbing, climbing, crawling, throwing and catching. There are many ways that can be done in tracking and developing athletes at an early age, including through lower grade elementary school (SD) students, gymnastics starts practicing at an early age. Talent needs to be identified from an early age so that it can be properly nurtured to develop quality players/athletes. Identifying individuals who are talented in sports and directing them to relevant sports is very important for success in sports achievement. Talent search is the process of selecting prospective athletes which involves the process of measuring various internal qualities of athletes which include: physical quality, anthropometry, motor quality, and psychological quality. In addition to basic technical skills, good biomotor skills are needed for an athlete to achieve the highest achievement. Data on the physical condition in the form of an athlete's biomotor component is very important for compiling training periodization. Information about the condition or physical abilities of athletes becomes very urgent when coaching and developing the athlete's overall physical condition will be carried out. According to Baker, et al [4] said that the physical condition of an athlete in the world of achievement sports is very important and fundamental, because to get good performance athletes must have excellent physical condition. Physical condition is a fundamental foundation that must be met first of all stages of an athlete to achieve perfect quality training in achieving maximum performance when competing. The physical condition itself consists of the basic biomotor components consisting of strength, endurance, flexibility, and speed. In compiling a sports talent scouting system, especially in the sport of karate, there are no guidelines or instruments, especially in the Sleman area. Based on this background, the author has the idea of developing an instrument for talent scouting in karate. With data on the biomotor component of prospective athletes as a whole combined with various karate talent test items, it is expected to create an effective and efficient model of talent scouting for karate sports.

## 1.2. Importance of the Problem

Coaching and guiding talent karate athletes in the Sleman Yogyakarta area must be optimized so that they can give birth to talented and capable athlete \_ achieve at the level international . So far in the Sleman area it hasn't make scouting talent as reference

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base For look for capable karate athlete developed in a manner maximum . If you can find candidate athlete talented since age early so scouting talent will more maximum Because in a manner calculation athlete talented more fast developed For reach performance high .

1.3. Relevant Research \_ Table 1. Test Type Talent Identification of Various Countries

No	Country	Title Research and Tests Conducted _
1.	Amerika	Kylie Thomas, Cameron Wilson, Elizabeth J Brad-
		shaw, (2013)
		Title: Fundamental Movement Assessment of Young
		Female Gymnastics.
		Types of tests: Height, mass body, leg length, length
		arm , movement ABC test , flexibility ( sit and reach
		), strength ( jumping squats ( $\mathit{squat\text{-}jump}$ ) and jumps
		reflection ( rebound jump displacement ), 30 second
		sit-up test
2.	Iran	Marefat Siahkouhian, Bahman Aalizadeh, Samad
		Esmaeilzade, (2013)
		Title: Talent Identification of Elite Iranian Male Ar-
		tistic and Trampoline Gymnasts . Kinds of tests :
		Height, weight, circumference head, circumference
		knee, long body part on
3.	Malaysia	Title: Applied multidimensional analysis for as-
		sessing youth performance in sport talent identifica-
		tion (2019). Description research: Research This try
		apply the test model with multidimensional analysis
		For identify talent . Anthropometric and fitness data
		physical (strength, agility, speed, flexibility, strength
		and power hold ) is obtained of 600 youth in analysis
		identification talent ages 13-15 years.

## 2 Methods

The design of this research is quantitative descriptive using a questionnaire given to 5 karate experts to assess the talent scouting instrument that was developed. The sampling technique in this research was purposive sampling with the sample criteria being experts in karate sports. The data collection instrument in this study used a questionnaire which was used to assess the suitability of anthropometric, biomotor and skills tests. Data analysis used to determine the validity of the instrument used Aiken V, while reliability used Cronbach's Alpha.

## 3 Results

Study This produce a guiding instrument talent For branch karate sports with test items following:

- 1. Measurement height
- 2. Measurement weight
- 3. Standing board jump
- 4. Side step
- 5. Reaction Time
- 6. Standing balance
- 7. Sit and Reach
- 8. push-ups
- 9. MFT
- 10. Kicks (maegeri & mawashigeri)
- 11. Punch (Gyaku tsuki & kesami tsuki)

## 3.1 Validity Instrument

Instrument validity by experts use formula aiken V with results as following:

Table 1. validation results table

Validators

Valid Item		$\Sigma_{\rm S}$	V
Item	100		
Item 1	Score S	14	0.933333
Item 2	Score S	14	0.933333
Item 3	Score S	12	0.8
Item 4	Score S	11	0.833333
Item 5	Score S	12	0.8
Item 6	Score S	13	0.866667

Item 7	Score S	13	0.866667
Item 8	Score S	12	0.8
Item 9	Score S S	13	0.866667
Items 10	Score S	15	0.93333
Item 11	Score S	13	0.866667

From the results calculation use Aiken V's formula concludes that the value obtained each item is >80, then can concluded that validity instrument scouting karate talent enters criteria validity high and very high with classification as following items 1, 2, 6, 7, 9, 10, 11 enter in very high category and items 3, 4, 5, 6, 8 entered category high. With thereby can concluded that instrument scouting karate talent declared valid.

#### 3.2 Reliability Intuments

Reliability is something reliable and reliable instrument used as tool collection data. Test reliability questionnaire can counted based on Cronbach's Alpha formula that is with SPSS 16.0 help , a instrument study can said reliable if from results analysis instrument the r-alpha equated with a list of interpretations as following :

Table 2. Interpretation List coefficient r

Coefficient r	Reliability
0.8000-1.0000	Very tall
0.6000-0.7999	Tall
0.4000-0.5999	Current
	ly
0.2000-0.3999	Low
0.000-0.1999	Very low

Source: Rusman [12].

## 3.2.1 Anthropometry

Table 2. Reliability Test Results Anthropometry

Cronbach's	N of
Alpha	Items
.938	3

From the results of the reliability test in the table on obtained Cronbach's Alpha value was 0.938 then mark This entered in criteria level reliability on the table the obtained results For test anthropometry said to be very high.

#### 3.2.2. Biometers

Table 3. Biometer Reliability Test Results

Cronbach's	N of	
Alpha	Items	
.849	8	

From the results of the reliability test in the table on obtained Cronbach's Alpha value was 0.849 then mark This entered in criteria level reliability on the table the obtained results For the biometer test is said to be very high .

Skills

Table 4. Reliability Test Results Skills

Cronbach's	N of
Alpha	Items
.849	8

From the results of the reliability test in the table on obtained Cronbach's Alpha value was 0.867 then mark This entered in criteria level reliability on the table the obtained results For test skill said to be very high.

#### 4 Discussion

There are four sporting facilities at MI Al-Kautsar, including a badminton court, a futsal field, a volleyball court, and a table tennis area. This school offers one physical education class per week, but there are also several required physical activity-based boarding activities for the students. Although most of the time at school, learning in sports-related courses at MI Al-Kautsar occasionally takes place outside of the class-room and at community centers near the school. The sports center and the nearby Jaya futsal twin field are two of the facilities that are often used. Around MI Al-Kautsar, there are 13 public open spaces in Ponorogo District, including sports arenas, parks, and squares.

Stage multilateral developments are put at the forefront of development programs before enter stages specialization, namely in children age: 6-15 years, aims: develop and correct motion basic (walk, run, jump, jump, throw catch) [10]. Activity exercise form all type sports and activities play containing \_ movement walking, running, jumping, skipping, climbing, climbing, crawling, throwing and catching. There are many ways you can done in search and construction athlete age early, in between past student school elementary (SD) class bottom, branch gymnastics start train since age early.

Talent needs to be identified from an early age so that it can be nurtured properly to develop quality players/athletes [7]. Identifying individuals who are talented in sports and directing them to the branch Relevant sport is very important for success in sports achievement [9]. Search talent is process election candidate athlete Which involve process measurement to various quality internal athlete Which includes: quality physique, anthropometry, motor quality, and psychological quality [6]. Besides Skills technique base, ability biomotor Which Good veryneeded for an athlete to achieve the highest performance. Data on physical condition form component biomotor athlete very important For compile periodization exercise. Information about the condition or physical abilities possessed by athletes is very urgent when will done coaching And development condition physique athlete in a manner whole. The physical condition of a person athlete in world sport performance is something matter Which very important and fundamental, Because For get performance Which Good so athlete must own excellent physical condition[8]. . Physical condition is a fundamental foundation that must be met first of all the stages of an athlete to achieve quality training perfect in achieving maximum performance when competing, own physical condition consists of the basic components of the biomotor consisting of components of strength, endurance, flexibility, and speed. In compile system scouting talent sport specifically on branch sport karate Not yet There is guide or the instrument especially in the Sleman area. Based on background behind Based on this, the author has an idea that is to develop an instrument for scouting talent branch sport karate. With data component biomotor candidate athlete in a manner overall combined with a variety of karate gifted test items, expected can create an effective and effective karate talent scouting model efficient.

## 5 Conclusion

Study This produce a guiding instrument talent For branch karate sports with test items following:

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the results of the reliability test anthropometry obtained Cronbach's Alpha value of 0.938, reliability test results biomotor obtained Cronbach's Alpha value of 0.849 and the results of the reliability test test Skills obtained Cronbach's Alpha value is 0.849

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