

## PalArch's Journal of Archaeology of Egypt / Egyptology

### Development of Dominant Basic Motion Assessment Model (Locomotor, Non Locomotor, Manipulative) Children Tuna Grahita

<sup>1</sup>Suprayitno, <sup>2</sup>Galih Priyambada, <sup>3</sup>Rudi Hartono

<sup>1</sup> Physical Education health and recreation, Faculty of Sports Sciences Medan State University

<sup>2</sup> Sports Education, Faculty of Teacher Training and Education, Muhammadiyah University of East Kalimantan

<sup>3</sup> Faculty of Education Technology, Universitas Ibn Khaldun Bogor, Indonesia

Email: <sup>1</sup>suprayitno@unimed.ac.id, <sup>2</sup>gp681@umkt.ac.id, <sup>3</sup>Rudihartono@uika-bogor.ac.id

**Suprayitno, Galih Priyambada, Rudi Hartono: Development of Dominant Basic Motion Assessment Model (Locomotor, Non Locomotor, Manipulative) Children Tuna Grahita -- PalArch's Journal Of Archaeology Of Egypt/Egyptology 17(9). ISSN 1567-214x**

**Keywords: Instruments, motion, basic, dominant, grahita, lightweight**

#### ABSTRACT

The purpose of this study was to obtain valid test assessment and measurement instruments to identify the advantages and disadvantages of the dominant basic motion of children with mild impairment. This research includes types of research and development. This study took place in 6 months, this research through 3 stages, namely (1) preliminary study stage, (2) drafting stage, (3) trial stage. The population in this study was SLB Tuna Grahita in Langkat Regency and Medan City. The results of the study obtained the standard of dominant basic motion assessment norms for children with mild category tuna grahita . among them; Male locomotor movements ( $\geq 39$  = Good, 35-38 = Enough,  $\leq 34$  = Less), Women's group ( $\geq 37$  = Good, 34-36 = Enough,  $\leq 33$  = Less). Motion Non Locomotor group of men ( $\geq 34$  = Good, 31-33 = Enough,  $\leq 30$  = Less), women's group ( $\geq 33$  = Good, 30-32 = Enough,  $\leq 27$  = Less). Manipulative Motion of the male group ( $\geq 50$  = Good, 40-49 = Enough,  $\leq 39$  = Less), women's group ( $\geq 48$  = Good, 39-47 = Enough,  $\leq 38$  = Less).

#### 1. Introduction

##### Problem Background

Sport is a series of activities of motion skills or playing objects that are carried out in a structured and systematic manner given to the human body so that human beings become stronger, healthier and skilled both physically and spiritually by using a certain rule limit in its implementation. Exercise as a



children with disabilities. In the development of test instruments and measurements of the dominant basic motion of children with visual impairment has not been found an instrument that can be used specifically for children with visual impairment. Therefore, it takes an effort to present instrument tests and measurements that can be used by teachers and coaches of children with disabilities.

### **Problem Formulation and Research Objectives**

Starting from the background of the problems that have been stated above, the problem of this research focused on the development of the dominant basic motion assessment model (locomotor, non locomotor, manipulative) of children with disabilities in the city of Medan. The purpose of this study is to obtain a valid test assessment and measurement instruments to identify the advantages and disadvantages of the dominant basic motion of children with visual impairment. The external target to be achieved in this study is the scientific publication in the journal National Ber ISSN online.

### **Discussion**

#### **Learning Basic Motion and Motion**

The notion of learning motion or motor in principle is not much different from the understanding of learning in general. Motor is a translation of the word motor which means "the basis of mechanics that causes a motion". Movement is an activity based on motor processes. This motor process involves a coordinated system of movement patterns (brain, nerves, muscles and skeleton) with a very complex mental process called motion creation process.

According to Awi Muhadi Wijaya (2009: 73), the definition of basic motion skills is as follows;

1. Locomotor skills include moving body movements, namely: walking, running, jumping, sliding, rolling, scraping, dropping, and cycling. Locomotor skills help develop a child's awareness of his body in space. This awareness is called motor perception awareness which includes awareness of the body itself, time, spatial relationships, the concept of direction, visual and auditory. This awareness will be seen from the children's efforts to imitate the movements of other children or their teachers.
2. Non locomotor skills, namely moving the limbs with a silent body position in places such as: swinging, lifting, swaying, stretching, hugging, curved, twisting, bending, pushing. This skill is often associated with the balance or stability of the body, namely movements that require balance at a certain level.
3. Manipulative skills, including the use and control of movement of small muscles are limited, especially those in the hands and feet. Manipulative movement skills, including stretching, squeezing, pulling, galvanize, cutting, meronce, forming, cutting and writing. Projecting, capturing and receiving skills. These skills can be seen when the child catches the ball, dribbles, throws the ball, kicks the ball, bounces the ball, hits and pulls.

Stage of Motion Development (motor behavior)

Locomotor Skills

## Manipulative Skills

### Basic Motion Assessment

In everyday life we know a variety of words related to evaluation. These words are used alternately regardless of the placement of the word esungguhnya. These words include; evaluation, testing, measurement and assessment. According to Suharsimi Arikunto (2002: 3) explains that measuring is comparing something by one size. Measurement is quantitative; judging is taking a decision against something with a good measure of bad. Assessment is qualitative; conducting an evaluation includes the two steps above, namely measuring and assessing. It can be concluded that the assessment is a process of transforming the results of measurements or several measurements based on indicators into a value. So that the assessment of the basic motion contains the meaning of making a basic motion decision or can be interpreted against something based on or holding on to a predetermined basic measure of motion.

### Tuna Grahita

Tunagrahita is another word of Mental Retardation. Tuna means loss. Grahita means mind. Mental retardation means mental retardation. According to the American (Association of Mental Deficiency /AAMD), a visually impaired child is a child who generally has deficiencies in terms of his intellectual function in real and simultaneously, has an impact on his shortcomings in terms of adaptive behavior, which occurs at the time of his development from birth to the age of eighteen years. (Hallahan and Kauffman in Yuniar and Nanik (2015: 280).

Rusli Ibrahim (2005: 40), that mentally retarded children have the following characteristics: "1) Hyperactivity is a tendency to focus attention on their motor activities. Their lack of attention is caused by several factors caused by conflict in themselves and the child is hyporesponsive so teachers must help them by showing what is right, helping to respond and provide motivation. 2) His motor perception is weak. 3) Have weak general coordination. 4) Imbalance in emotions. 5) chaos in attention. 6) According to the heart. 7) Weak in wheezing and thinking. 8) Experiencing academic problems and 9) difficulty in speaking and learning".

Samsul Arifin and Sri Oefianti (2015: 2), explained that children with visual impairment are children whose intelligence is below average. Moderately impaired children are one of the children with special needs who experience various developmental problems both motor, cognitive, sensory, emotional and social problems.

Furthermore, Samsul Arifin and Sri Oefianti (2015: 4), explained that children with visual impairment have weaknesses in terms of mobility skills, unhealthy physique, coordination of motion, lack of confidence in the situation and surrounding circumstances, fine motor skills and lack of gross motor. Therefore, children with visual impairment are in need of special services to overcome their problems.

Classification of the visually impaired for learning purposes according to B3PTKSM as follows:

1. Borderline in education is referred to as slow learner with AN IQ of 70-85
2. Visually impaired able to educate (educable mentally retarded) IQ 50-75
3. Deafness is able to train (trainable mentally) with an IQ of 30-50 or 35-55
4. Deaf need treatment (dependent or profoundly mentally retarded) with an IQ below 25 or 30

## 2. Research Methods

Research method used in an effort to answer the problem of this research is research and development (Research and & Development) which is often abbreviated as R&D. Borg and Gall (1989: 784-785) explained ten steps in research and development. But in this case, the research model of Borg and Gall development was modified into three steps, namely: (1) preliminary study stage, which includes literature study, field study, and instrument drafting; (2) model development stage, (3) instrument trial stage. In this case, the research model of Borg and Gall development was modified into three steps, namely: (1) preliminary study stage, which includes literature study, field study, and instrument drafting; (2) the stage of development study, the dissemination of draft instruments of dominant basic motion assessment and experts, shall be evaluated and improved the draft assessment model according to the input given; presenting a draft improvement assessment model to an expert, evaluating and improving the draft assessment instrument.

The population of this study is SLB C students in North Sumatra. In this study, researchers took purposive sampling method (sample aims), where all students with mild impairment at SDLB Negeri Langkat and SLB Pembina Medan as samples in wide-scale trials and in small-scale trials at SLB Langkat. The data obtained is quantitative and qualitative. Quantitative data in the form of figures obtained from the assessment questionnaire of development products and student response questionnaires compiled on a Likert scale (multilevel scale) and Guttman scale. Qualitative data in the form of responses, criticisms and suggestions are outlined in the questionnaire. The resulting data relates to the feasibility or suitability of the mining products created.

The trial samples in this study are for field research. After the revision of the device is tested again in the field, can be seen in Table 3. Data for character grain measurement, performed with an assessment instrument sheet. The data obtained is done scoring. The number of small-scale trial samples of the male group amounted to 12 people and the women's group numbered 18 people at SDLB N Langkat. Large-scale trials of a group of 28 men and a group of 23 women at SLB Pembina Medan. The implementation of small-scale trials to see the effectiveness and efficiency of the instrument while in extensive trials is carried out to create the norm and reliability level of the instrument.

### 3. Research Results

#### 1. Define

a. Needs analysis Needs analysis aims to raise and establish basic problems in the assessment of the dominant basic motion of children with mild category tuna grahita.

b. Analysis of the dominant basic motion assessment of children with mild impairment cannot be ignored in designing and developing assessment instruments developed in order to help students in improving their dominant basic attitude.

c. Analysis of instruments is carried out to consider the extent of the instruments used in the assessment of the dominant basic motion of children with visual impairment

d. Analysis of learners through field observation and literacy studies about children with mild impairment. The result is the lack of instruments and the dominant basic norms of motion for children with mild impairment.

e. Task analysis is focused on the analysis of the dominant basic motion assessment instruments of children with mild disabilities in both the male and female groups. Analysis of tasks can be in the form of grid analysis and archework instruments dominant children with mild impairment.

2. Design Stage (design) instrument assessment of the dominant basic motion of children with mild impairment is made according to the development steps that have been prepared. Instruments are stacked based on the study of supporting theories (content validity) and arranged based on the steps of scientific preparation (construct validity).

3. Development Stage (develop) a. Validity of Instruments with validity of this test instrument using content validity (validity of content) and face validity (expert test) while reliability using re test with the result  $r = 0.82$ .

4. The results of the study obtained the standard of basic motion assessment norms dominant for children with mild category tuna grahita. The standard norms are as follows; Male locomotor movements ( $\geq 39 = \text{Good}$ ,  $35-38 = \text{Enough}$ ,  $\leq 34 = \text{Less}$ ), Women's group ( $\geq 37 = \text{Good}$ ,  $34-36 = \text{Enough}$ ,  $\leq 33 = \text{Less}$ ). Motion Non Locomotor group of men ( $\geq 34 = \text{Good}$ ,  $31-33 = \text{Enough}$ ,  $\leq 30 = \text{Less}$ ), women's group ( $\geq 33 = \text{Good}$ ,  $30-32 = \text{Enough}$ ,  $\leq 27 = \text{Less}$ ). Manipulative Motion of the male group ( $\geq 50 = \text{Good}$ ,  $40-49 = \text{Enough}$ ,  $\leq 39 = \text{Less}$ ), women's group ( $\geq 48 = \text{Good}$ ,  $39-47 = \text{Enough}$ ,  $\leq 38 = \text{Less}$ ).

### 4. Conclusion

Based on the research that has been done, it has been produced the dominant basic motion assessment instrument for children with mild group tuna. valid and practical. Instruments have met valid criteria (content and face validity) and a high level of reliability with a level of reliability  $r = 0.82$ .

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- Teaching staff (lecturers) at PJKR FIK and PPs Post Graduate University of Medan.