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## Student motor ability analysis primary school

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### Abstract

Motor movement is a fundamental movement in a child's growth, in particular, it will always be related to the learning process as well as in everyday life. Motor skills are not only to improve students' skills in sports, but it will also help to make it easier for students to carry out their work in the process of Physical Education. This research was conducted with the aim of knowing the motor skills of elementary school students in Majalengka. While the method used in this study is descriptive research. From the results of testing the descriptive frequency analysis it can be stated that the motor skills of elementary school students in Majalengka are in good condition. This is evidenced by the results of the descriptive frequency analysis, there are 1 student (3.23%) in the very good category, 14 students (45.16%) in good category, 11 students (35.48%) in the sufficient category, 1 student (3.23%) in the less category, and 4 students (12.90%) in very poor category. Thus it can be concluded that the motor skills of elementary school students in Majalengka are generally in good condition.

**Keywords:** Analysis, motor ability, elementary school students

### Introduction

Physical education. what is taught in school is basically education through physical activity that is used to achieve individual development as a whole. But the acquisition of skills and other physical development also serves as a goal. Through Physical Education, students are socialized into physical activities including exercise skills. Physical education is part of a comprehensive education and at the same time has a strategic potential to educate. Physical education teachers play a role in providing knowledge to their students about the importance of motor skills.

Motor development is the development of movement from the beginning of growth, namely the development that focuses more on the quality of motion. The basic motion capability is basically the underlying ability of movement carried from birth that is general or fundamental which plays a role in both sports and non-sports movements. For that elementary school students need to be instilled the basic motor skills that they have can be done correctly. Motor is a movement that involves large muscles during growth, Such movements include prone, crawling, sitting, standing and walking.

During the child's growth, the development of motion or motor development is very important and fundamental for the continuation of the child's development to the next stage. Naturally, as an increase or increase in the age of a child to adulthood will be followed by an increase in children's motor skills. Motor movement is a fundamental movement in a child's growth, especially it will always be related to the learning process or in his daily life. The direct impact felt by the effect of such a lifestyle is the decline in the child's motor skills. Besides that, the child's diet will be disrupted and make the body condition that needs good nutrition for its development also become obstructed. Students or children who have a good level of motor skills will tend to be easier to do in sports skills, than students with poor motor skills. Motor skills are not only to improve students' skills in sports, but it will also help to make it easier for students to carry out their work in the process of Physical Education.

### Literature Review

#### 1. The Nature of Analysis

According to Wiradi (2009: 20): analysis is an activity that contains activities to sort, parse, differentiate something to classify and group according to certain criteria and then look at the

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appraisal of its meaning and relation <sup>[1]</sup>. Meanwhile, according to Syahrul and Mohammad Afdi Nizar (2000; 48) states that analysis is an activity of evaluating certain conditions of verses or posts related to accounting <sup>[2]</sup>. At the same time with possible reasons for the differences that arise.

## 2. The Nature of Motor Ability

Motoric ability is also called motion ability. According to Hari Yuliarto (2003: 83), the ability to move is a general capacity related to the achievement of various skills <sup>[3]</sup>. Motoric ability comes from English, namely motor ability, motor is an activity that is very important for humans, because with motor humans can achieve something that is their hope.

According to Rusli Lutan (2001: 18), motor skills are a person's capacity related to the implementation and demonstration of a skill learned, so that it will have an impact on the growth and development of children <sup>[4]</sup>. Motoric ability is more appropriate is the capacity associated with the implementation and demonstration of skills that are relatively inherent in children. Biological factors are considered as the main force that influences a person's gross motor. It is this gross motorbike that then acts as a foundation for the development of skills.

Based on the above opinion, it can be concluded that motor skills are the basic ability of motion or the quality of the results of movement that comes from inside and outside of the child to refer to low motion skills that can be improved through training. Motoric ability is a basic movement change from infancy to adulthood which involves several components of motion in carrying out a sports motion activity as well as daily activities.

### a. Motor Ability Objectives

Motor function according to Cureton in Toho Cholik Mutohir and Gusril (2004: 51), the main function of motor skills is to develop the abilities and abilities of each individual that is useful for enhancing workability <sup>[5]</sup>. By having good motor skills, individuals have the foundation to master specific motor skills. All motor elements in each child can develop through sports activities and play activities that involve muscles. The more children experience movement, of course, the more trained elements of motor skills with the amount of motor experience carried out will certainly increase their maturity in motor activities.

Based on some of the opinions above it can be concluded that the purpose of motor skills is to develop the ability and ability of each individual that is useful to enhance work power. The ability to move is very important to learn because the ability of motion is part of the psychomotor domain and in the development of mastery of motion skills.

### b. Benefits of Motor Ability

Someone who has high motor skills is expected to be better and successful in performing various skill tasks than someone who has low motor skills. Motor skills possessed by a person are different and depend on the amount of movement

experience that they control. The principle of motor skills is a change both physically and psychologically in accordance with its growth period.

To date, there has been no universal accuracy in the basic components that form the basis of physical performance, so education teachers and sports coaches often use motor skills as a tool for identification. According to the results of this identification the right activities are given to students, so that students can develop their own abilities or at least reduce their weaknesses <sup>[6]</sup>. (Setyo Nugroho, 2005: 24).

Based on the above opinion it can be concluded that by knowing the motor skills students can be given the right activities given to students, so that students can develop their own abilities or at least reduce their weaknesses.

### c. Elements of Motor Ability

According to Bompa, quoted by Djoko Pekik Irianto (2002: 66), there are five basic biomotorics, namely:

1. Strength is the ability of a muscle or group of muscles to overcome a prisoner.
2. Endurance is the ability to do work for a long time.
3. Speed is the ratio between distance and time or the ability to move in a short time.
4. Determination is the ability of joints to move through a wide range.
5. Coordination is the ability to move at various levels of difficulty quickly and precisely efficiently <sup>[7]</sup>.

According to Nurhasan (2004: 66), the basic ability of elementary school students was measured using the motor ability test, with 4 test items to measure motoric ability elements. The four test items measure: 1) agility; 2) coordination; 3) balance of body and strength or endurance; 4) speed <sup>[8]</sup>.

Based on the above opinions can be directed to the instrument that will be used that a person's motor skills are different depending on the number of experience of the movement controlled. Each person has advantages and disadvantages in getting the components of motor skills.

## 3. The Nature of Skills

### a. Understanding Skills

The skilled term is usually used to describe a person's level of ability that varies (Singer in Bani Tri Umboro, 2009: 8), skill is a consistent degree of success in achieving an objective effectively and efficiently determined by speed, accuracy, form, and adaptability <sup>[9]</sup>. A person is declared skilled if the activities carried out are characterized by his ability to produce something of high quality (fast or careful).

According to Amung Ma'mun and Yudha (2000: 58), "To obtain a skill level, basic knowledge is needed about how certain skills can be produced or obtained as well as what factors play a role in encouraging mastery of skills" <sup>[10]</sup>. So that in essence, a skill can only be mastered or acquired when studied with certain requirements, one of which is learning activities or skills training is carried out continuously within a

<sup>1</sup> Wiradi, Gunawan. 2009. *Metodologi Studi Agraria*. Sajogyo Institute Bogor.

<sup>2</sup> Syahrul, dan Muhammad Afdi Nizar. 2000. *Kamus Istilah Akuntansi*. Jakarta: Balai Pustaka.

<sup>3</sup> Hari Yuliarto. 2003. *Pendekatan Baru Strategi Belajar Mengajar Berdasarkan CBSA*. Bandung: penerbit Sinar Baru

<sup>4</sup> Rusli Lutan. (2001). *Asas-asas Pendidikan Jasmani*. Jakarta: Depdiknas.

<sup>5</sup> Toho Cholik Mutohir & Gusril. (2004). *Perkembangan Motorik Pada Masa Anak-anak*. Jakarta: Depdikbud RI.

<sup>6</sup> Setyo Nugroho. (2005). *Status Kemampuan Motorik Umum Siswa Sekolah Sepakbola Di Kabupaten Sleman*. Laporan Penelitian Mandiri. Yogyakarta: FIK UNY

<sup>7</sup> Djoko Pekik Irianto. (2002). *Dasar Kepeleatihan*. Yogyakarta: FIK UNY.

<sup>8</sup> Nurhasan. 2004. *Penilaian Pembelajaran Penjas*. Jakarta: Depdiknas.

<sup>9</sup> Bani Tri Umboro. (2009). "Tingkat keterampilan bolavoli siswa putera kelas XI SMA Negeri I Pundong Bantul

<sup>10</sup> Skripsi. Yogyakarta: FIK UNY.

<sup>11</sup> Amung, Ma'mun dan M. Saputra Yudha. (1999/2000). *Perkembangan Gerak dan Belajar Gerak*. Bandung: IKIP Bandung Press.

predetermined period of time.

Based on the description above, it can be concluded that skills are basic movements in sports that are carried out using one movement technique that is carried out effectively and efficiently to produce maximum results.

### b. Skill Benefits

According to Sukintaka (1992: 126), the first motion program for children is psychomotor development<sup>[11]</sup>. Psychomotor development refers to learning to move consciously and efficiently in space. According to Yanuar Kiram (1992: 11), Skills are actions that require activities that must be learned in order to get the right form of movement. A person is declared skilled if he can move according to the right movement<sup>[12]</sup>.

Meanwhile, according to Sugiyanto and Sujarwo (1991: 13), "Motion skill is the ability to perform movements effectively and efficiently<sup>[13]</sup>. Furthermore Sugiyanto and Sudjarwo (1991: 13)," explained that the movement skills obtained from the learning process are by understanding the movements and doing repetitive movements with the awareness of the correctness of the movement<sup>[14]</sup>.

Based on some of the opinions above, it can be concluded that skills are actions that require activity. Skills development refers to learning motion. The benefit of a skill is that someone will be able to master the motion well if they have the movement skills they learn.

### c. Skills Elements

A person's skills can be improved for the better. To achieve good skills requires the following: 1) the willingness of the individual, in the form of motivation to be able to master the skills taught, 2) the existence of a learning process that is supported by good learning conditions and environment, 3) the principles of training developed to strengthen the response that occurred. skill is generally seen as a person's performance skills<sup>[15]</sup>. Skills are influenced by several factors. According to Bompa (1994: 324), the factors that influence skills are: 1) Thinking or intelligence; 2) Accuracy and proficiency of limbs / body parts associated with feelings; 3) The experience of motion, reflected by a variety of motion skills; 4) The level of development of other motion capabilities<sup>[16]</sup>.

Based on some of the opinions above it can be concluded that a person's skills can be improved. Skills are the abilities of a person's performance, and to improve skills by paying attention to the factors that influence skills.

### 4. Characteristics of elementary school students

Students with status as subjects of education. Education according to Driyarkara in Sumitro, *et al.* (1998: 66) "A conscious effort to humanize humans must look at students humanely and develop their personality fully and completely, in a balanced, harmonious and dynamic unity."<sup>[17]</sup>

<sup>11</sup> Sukintaka. (2001). Teori Bermain, Untuk D-II PGSD Penjaskes. Jakarta: Depdikbud Dirjen Pendidikan Tinggi Proyek Pembinaan TenagaKependidikan.

<sup>12</sup> Yanuar Kiram. (1992). Kemampuan Koordinasi Gerak dan Klasifikasi Aktifitas. Y Kiram. Padang

<sup>13</sup> Sugiyanto dan Sudjarwo. (1991). Perkembangan dan Belajar Gerak. Jakarta.

<sup>14</sup> Ibid

<sup>15</sup> Sukintaka. (2001). Teori Bermain, Untuk D-II PGSD penjaskes., Jakarta:Depdikbud Dirjen Pendidikan Tinggi Proyek Pembinaan TenagaKependidikan.

<sup>16</sup> Bompa,O, Tudor. (1994) Terjemahan Buku Theory And Methodology Of Training. Bandung: Program Pasca Sarjana Universitas Padjadjaran.

<sup>17</sup> Sumitro. Dkk. (1998). *Pengantar Ilmu Pendidikan*. Yogyakarta: Fakultas Ilmu Pendidikan Universitas Negeri Yogyakarta

Primary school is a very important time in learning. This not only is the child easily affected by the environment at present, but students are also in the level of physical and psychological development. According to Siti Partini (1995: 102 - 112), childhood at the age of 6 years until the time comes for individuals to become sexually mature. Still according to Siti Partini (1995: 115-116), describes the period of high classes or grades V and VI of elementary school between the ages of 9-13 years. Usually this age child sits in grades V and VI. At this time there arises interest in special lessons, want to know, want to learn, realistic. Further according to Siti Partini (1995: 116), the characteristics of children during the high school grade period are:

- His attention is focused on everyday practical life.
- Want to know, want to learn, realistic.
- Interest in special lessons arises.
- Children perceive value as the right measure of their learning achievement at school.
- Children like to form peer groups or peer groups to play together, and they make their own rules in their groups<sup>[18]</sup>.

### Research Methods

This research is descriptive research, meaning that in this study researchers only want to describe the current situation, without testing the hypothesis. This study focuses on the motor skills of elementary school students in Majalengka. Suharsimi Arikunto, (2005: 177). Tests are conducted to obtain the required data that will be processed to be concluded<sup>[19]</sup>. Research to measure students' motor skills in terms of psychomotor aspects using ability tests. According to Nurhasan (2004: 66), this test has a reliability of 0.93, and its validity is 0.87. This test is used to measure basic mobility for elementary school students. The motor ability test instrument from Nurhasan (2004: 66) is as follows:

- 4x10 meter shuttle run test, to measure agility in moving changes direction.
- The ball-throwing test is a distance of 1 meter to the wall for 30 seconds, measuring the eye's coordination ability by hand.
- Stork stand positional balance test, measures body balance.
- 30 meter sprint test, measuring speed of running fast<sup>[20]</sup>.

### Research Results and Discussion

Descriptive analysis of data from the results of the study aims to provide a general description of the distribution of data on motor skills in elementary school students in Majalengka. The recapitulation of the results of the descriptive analysis of the data is presented as follows:

#### a) The results of the descriptive analysis of the frequency of the shuttle run 4x10 meter test data

The results of the descriptive analysis of the 4x10 meter student shuttle run t-score data obtained a mean value of 46.25 and a standard deviation of 9.39. This value is then used as a benchmark for categorizing data with the following results:

<sup>18</sup> Siti Partini. (1995). *Psikologi Perkembangan*. Yogyakarta: FIP IKIP Yogyakarta.

<sup>19</sup> Suharsimi Arikunto (2005). *Prosedur Penelitian Suatu Pendekatan Praktek (EdisiRevisi)*. Jakarta: PT Asdi Mahasatya.

<sup>20</sup> Nurhasan. 2004. *Penilaian Pembelajaran Penjas*. Jakarta: Depdiknas

**Table 1:** Test data on shuttle run 4x10

No	Value Range	Information	Frequency	Percentage (%)
1	$X \geq 60,32$	Very good	0	0.00%
2	$50,94 \leq X < 60,32$	good	11	35.48%
3	$41,55 \leq X < 50,94$	Enough	16	51.61%
4	$32,17 \leq X < 41,55$	Less	0	0.00%
5	$X < 32,17$	Less once	4	12.90%
Total			31	100%

Based on the analysis of shuttle frequency run 4x10 meters students in sufficient categories, this is evidenced by the acquisition of sufficient category analysis obtaining the highest score of 51.61%.

#### b) The results of a descriptive analysis of the frequency of the ball catch test data

The results of the descriptive analysis of the ball catch t-score test data obtained a mean value of 47.29 and a standard deviation of 9.68, This value is then used as a benchmark for categorizing data with the following results:

**Table 2:** Test data on ball catches

No	Value Range	Information	Frequency	Percentage (%)
1	$X \geq 61,82$	Very good	3	9.68%
2	$52,13 \leq X < 61,82$	good	12	38.71%
3	$42,45 \leq X < 52,13$	Enough	10	32.26%
4	$32,77 \leq X < 42,45$	Less	2	6.45%
5	$X < 32,77$	Less once	4	12.90%
Total			31	100%

Based on the results of frequency analysis of ball catching in

**Table 4:** Data run 30 meters

No	Value Range	Information	Frequency	Percentage (%)
1	$X \geq 55,79$	Very good	1	3.23%
2	$50,85 \leq X < 55,79$	good	14	45.16%
3	$45,92 \leq X < 50,85$	Enough	11	35.48%
4	$40,98 \leq X < 45,95$	Less	1	3.23%
5	$X < 40,98$	Less once	4	12.90%
Total			31	100%

Based on the table above it is known that the ability is 8 students (19.35%) in the excellent category, 9 students (29.03%) in the good category, 6 students (19.35%) in the sufficient category, 2 students (6, 45%) in the less category, and 6 students (19.35%) in the very less category. Based on the results of the 30 meter fast run frequency analysis of students in good categories, this is evidenced by the acquisition of good category analysis obtaining the highest score of 29.03.

From the results of testing the frequency descriptive analysis it can be stated that students' motor skills are good. This is evidenced by the results of the frequency frequency descriptive analysis that there are 1 student (3.23%) in the excellent category, 14 students (45.16%) in the good category, 11 students (35.48%) in the sufficient category, 1 student (3.23%) in the less category, and 4 students (12.90%) in the very less category.

## Conclusions and Recommendations

### A. Conclusion

Based on the results of data analysis and a description of the discussion that has been stated, it can be concluded that the motor skills of elementary schools in Majalengka are in the good category, this is evidenced by the acquisition of a good

category, this is evidenced by the acquisition of good category analysis obtaining the highest score of 38.71%.

### c) The results of descriptive analysis of the frequency of stork stand positional balance test data

The results of the descriptive analysis of the Stork Stand test t-score data positional balance of elementary school students in Majalengka obtained a mean value of 50 and a standard deviation of 10.15. This value is then used as a benchmark for categorizing data with the following results:

**Table 3:** Positional stork stand test data

No	Value Range	Information	Frequency	Percentage (%)
1	$X \geq 65,23$	Very good	12	40.00%
2	$55,08 \leq X < 65,23$	good	2	6.67%
3	$44,92 \leq X < 55,08$	Enough	6	20.00%
4	$34,77 \leq X < 44,92$	Less	5	16.67%
5	$X < 40,98$	Less once	5	16.67%
Jumlah			31	100%

Based on the results of the frequency analysis the standard stand is in the excellent category, this is evidenced by the acquisition of excellent category analysis obtaining the highest value of 40.00%.

### d) The results of the descriptive analysis of the frequency of the 30 meter sprint test data

The results of descriptive analysis of t-score 30 run fast data obtained a mean value of 50 and a standard deviation of 10.17. This value is then used as a benchmark for categorizing data with the following results:

category analysis obtaining the highest score of 45.16%.

## B. Suggestions

Based on the results of data analysis and conclusions, the following suggestions can be put forward:

1. To students to always pay attention and train themselves and equip themselves regarding knowledge about the importance of developing abilities
2. To coaches, sports teachers and observers in the field of sports, it is recommended that it should be considered the results of this study as a reference to be able to improve students' motor skills.

This research is certainly still very limited and still far from what is expected from many academics and practitioners, especially the breadth and depth of the variables used only limited to motoric skills analysis, then it should be further investigated with a greater number of variables and reflect all dimensions related to motor skills.

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