# c4-The Diference In The Effects Of Birth Types On The Motor Skills Of Children at an Early Age

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**Submission date:** 25-Nov-2019 10:46AM (UTC+0700)

**Submission ID:** 1220994723

File name: Birth\_Types\_On\_The\_Motor\_Skills\_Of\_Children\_at\_an\_Early\_Age.pdf (238.6K)

Word count: 3368

Character count: 17261

### THE DIFFERENCE IN THE EFFECTS OF BIRTH TYPES ON THE MOTOR SKILLS OF CHILDREN AT AN EARLY AGE

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#### **Abstract**

**Objectives:** This study aims to determine differences in the effect of birth on motor skills of early childhood. Many beliefs in the community that the type of birth and even birth day have an effect on the ability of intelligence and motor, in this research will be revealed the truth of the community's belief about motor skills.

**Methods:** The method of this research is survey with observational approach, population in this research are children of early age in Pakem sub district, while sampling technique with purposive sampling, amount of each type of birth counted 19 child. A data collecting device with a parent's checklist for the type of birth and motor skills test in the form of a 25-meter sprint, long jump without prefix, throwing the ball with one hand, arranging the coca-cola bottle into a 5, 4, 3, 2, 1 home model, walks over the beam 2 meters back and forth and reflects the ball on the floor and then captures it. Data analyst using one-way variance analysis with 5% significance level.

**Results:** The results showed that there was a significant difference between normal birth types using a pacemaker or a caesarean. For a child born with a caesar the average motor score is better when compared with the type of normal birth or by using a pacemaker, while the normal birth better average motor ability than birth by using a pacemaker.

**Conclusion:** The conclusion of this study was that there was a difference in the effect of the type of birth on motor ability in early childhood P <0.05 and based on the mean difference of children born by cesarean delivery at the highest motor ability, then the birth of normal and new birth using pacemaker.

Keywords: Influence of Kind of Birth to Motor ability

#### INTRODUCTION

In general there are several types of births that are normal birth, birth with equipment, breech birth and caesarean birth. Many believe that the type of birth and even the day of birth affect the nature and characteristics and motor skills in children. The philosophers hold that in the event of early crying a traumatic birth is interpreted as an expression of infuriated anger that is removed from the warm and safe cervical cavity. This view is in line with the view of psychologist William James who states that birth is a traumatic event that causes a shock to the child. Furthermore it is said in Otto Rank theory that birth is a traumatic event so it can cause anxiety that interfere throughout life.

Man is born with various kinds and birth is not the beginning of life, but birth is an interruption in the pattern of development, no two humans have the same prenatal environment or birth experience it can be estimated that the effect of birth is very influential in the period of development. Accordingly, in this study will reveal how the influence of kind or type of birth to motor skills coarse and fine motor in early childhood.

At the age of the first five years of life is often referred to as the golden period of motor development is often often ignored and received less attention from careers, counselors and even parents. This is caused by not understanding about the basic role of physical motor building, like the foundation of a house building will be made floor one, two, three and so on, this of course requires the specification of each foundation as well as about the physical motor. The pattern of motion that has been formed and wrong will be relatively settled and very difficult to change, the wrong motion base pattern will not be efficient in doing the next movement so that will spend much energy even more

concerning again is the ability of sports achievement is always lower. The wrong basic motion pattern can cause low self-confidence and ultimately affect behavior.

Kindergarten education is organized in an effort to help lay the groundwork for development in all aspects before entering school. Preschool age is the age of sensitivity to receive a stimulus that is crucial for the development of children in the future. Implementation of lessons at school is no exception in kindergarten will not be separated from the curriculum reference, curriculum is like a dough to make something that has been planned. Curriculum in kindergarten one of the goals is to make the growth and development of motor physical child. Errors in basic laying will result in a wrong pattern and have difficulty in corrections and take a relatively long time to fix it.

Children who get a preschool education will be better and will be better prepared to enter basic education, this is due to: a) The occurrence of a sense integration between the nervous system and muscles with the environment, awareness of the difference of opinion has grown and appreciate others, the ability to work together and the ability to communicate is good. b) able to perform simple analysis and make consideration which further make decision on problem faced. c) Improved ability to obtain information and ability to communicate either with oral, written or motion.

Child development has a comprehensive nature and interconnected relationships between components. In general, development can be grouped into four domains of biological, cognitive, affective and psychosocial. Biological development includes changes in the structure and function of the body, the structure concerning the physical condition that will be formed in posture this is due to the existence of hormonal changes and the impact of this change is the occurrence of changes in physiological function.

#### **Problem Identification**

Based on the description in the background of the above issues can be identified the problems that arise:

- Not yet known differences in the influence of the type of birth on the ability of fine motor skills and fine motor in early childhood.
- 2. Not yet known which is better motor skills than the various types of birth?
- Not yet known the difference of the same type of birth but different gender to the ability of his motor skills.

#### **Problem Formulation**

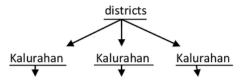
- 1. Are there differences in the effect of birth on motor skills in early childhood?
- 2. Which is better than the various types of births?

#### **METHOD**

#### Type and Design Research

The method of this research is survey with observational approachand based on data analysis with quantitative analysis. Quantitative in the effort to know the success of development of basic motion pattern in preschool age children and differences between factors that affect motor ability and motor differences based on sex while qualitative in an effort to know the factors that influence in relation to the formation of basic motor ability of child.

This research includes observational research with targeted research targets in the following schemes:



Kindergarten Kindergarten

Fig. 1. Reseach target schemes

#### Research approach.

Approach of this research completion by observasinal study and taking of data with questionnaire and test, questionnaire to take data of child birth type while test is used to capture motor ability data both motor coarse and fine motor,

#### Research location.

The research was conducted in PakemHarjobinangun sub-district, Sleman Regency, Yogyakarta **Definition of Operational Variable.** 

- Motor development is a gross motor movement and fine motor movement both locomotor (movement of place movement), nocturnal motion (movement does not move) and manipulative (hand and foot eye coordination movement).
- 2. Early childhood is a child of either sex male or female between 5 years old until age 6 years and registered as student in kindergarten.

#### Research instrument

To get the data in this study by using research instruments in the form:

- 1). Questionnaire to explore the type of birth given and filled by the child's parents
- 2). Motor ability:
  - a. Gross motor:
    - 1). run 25 meters
    - 2. long jump without prefix.
    - 3. Throw the ball with one hand.
  - b. Fine motor:
    - 1. Prepare the bottle of coca cola into a model house 5, 4, 3, 2, 1.
    - 2. Walk on the beam 2 meters back and forth.
    - 3. Reflect the ball on the floor and be caught.

#### Data analysis techniques.

Data analysis technique used in this research by using different test of one-way variance analysis with 5% significance level.

#### **RESULT AND DISSCUSION**

Pakem is a District in Sleman District of Yogyakarta Special Region, Pakem Sub-district is located in the north of Sleman District with the location of the Capital District is located at 77.66708 LS and 110.42011 BT with an area of 4,384.04 Ha and the address of the office in JalanCangkringan No. 3. Pakem Sub district inhabited by 8,926 households with a population of 32561 people with details of 15847 men and 16,714 women with population densities of 1,551 people / km2 and most of the inhabitants were farmers. Pakem District in the west is bordered by TuriSubdistrict, north of Mount Merapi, east of CangkringanSubdistrict and to the south border with NgaglikSubdistrict. Pakem subdistrict consists of five villages namely Candibinangun Village, Hargobinangun, Harjobinangun, Pakembinangun and Purwobinangun and has an early childhood education unit (school) as many as 62 schools both private and public.

After analyzing the data of each type of birth in this case only use three types of birth that is caesar, normal and using a booster tool, each of which amounted to 19 children. Motor skills in this case

by using 6 kinds of 25 meter quick test, jump without prefix, throw one hand ball, arranging objects, walking on the beam of the catwalk and throwing catch, after the pen T score obtained the following results:

Table 1. Motor ability

Type of Birth	N	Mean	Std. Deviation	
Operasi_Caesar	19	58.3373	3.15912	
Normal	19	49.6718	3.04417	
Pacemaker	19	42.0412	2.60649	

Based on the difference in mean turns for children born by Caesar way higher motor ability than two types of normal birth or using pacemaker because it has mean 58.3373. While for the type of normal birth is higher motor skills when compared with the type of birth using a 49.6718 and a new pacemaker type using a pacemaker 42.0401.

After the data collected and in doing pen T score then held different test by using analysis of variance with one path in get result as in table 2 below:

Table 2. Anava results

	Sum of Squares	Df	Mean Square	F	Sig.
Between	2526.576	2	1263.288	145.535	.000
Groups					
Within	468.735	54	8.680		
Groups					
Total	2995.311	56			

#### Discussion

Motor skills are the ability of a person to display motion either in the form of coarse motion or complex motion (Crowley 2014: 70), while according to Harlock (2007: 150) motor development means the development of physical motion control through controlled nerve center and muscle activity. The development of each child has a unique characteristic and each individual can develop according to their individual conditions, but in general the development of the child will follow the same pattern of development even though the speed in passing each stage is not the same. General pattern of motor development in a person is divided into 2 (Two) main components namely pre pregnancy and skills. Preskill is divided into 3 (three) parts: reflective motion, sense integration and motion pattern formation, while skill development includes refinement of motion, appearance and setback.

Specific motor movements in preschool children are divided into 2 (two) major parts of motor isgross and fine motor. groos motor has a relatively slight movement of movement movement, while fine motor has been directed to the coordination of motion and emerging beauty, flexibility of motion. Motor skills are the ability to perform physical motion which in this case is measured by motor tests of both gross motor and fine motor. Skill development takes a long time to achieve good skill, besides that the physiological changes of body basically follow change according to age, maturity of nervous system will increase with age. A person can movewith good coordination due to the integration of sensory sense and motor abilities that are all controlled by the nervous system.

A normal pattern of development is parallel to the development of the nervous system and muscles, so that motor development is determined by the maturity of the nervous system and muscles in integrating the functions of the body system. The maturation of the nervous system and muscles greatly determines the speed in conveying information from sensory receptors, this kind of information will then be integrated at all levels of the nervous system and will then cause the right reaction in

accordance with the stimulus from simple movement to very complex movements. Increased normal childhood will always be followed by increased sensitivity of the nerves, then kind of excitatory on the nerve will be delivered to the brain to determine the right reaction to the stimuli. Motor skills are divided into two major parts of gross motoric and fine motor. Groos motor has the nature of the movement is broken, the movement coordination is still ugly and less efficient, while the fine motor according Johnston & Halocha (2010: 54) states that fine motor skills are those manipulative skills that involve small movements and parts of the body, such as picking up, feeding themselves, threading, drawing, cutting and dressing. Fine motor skill develop slightly later than gross motor skills need patience and practice to develop. Cameron et al., (Keifer, 2015: 3) states that fine motor skills refer to the pencil. Children use fine motor skills in school with tasks such as cutting and pasting, using manipulatives in mathematics, or clapping them hands to learn syllables. Meanwhile, according to Payne & Isaacs (2012: 11) that fine movements are primarily governed by the small muscles or muscle groups. Many movements of the finger and hand moves of fingers, hand, and forearm are critical to the production of finger and hand movement According to the theory of the dynamic system of Esther Thelen that in the development of motor skills must perceive the thing that motivates it to react and exploit its perception to expand its motion. The study of motor is not separated from the performance and body movement General pattern of motor development in a person is divided into 2 (Two) main components of pre pregnancy and skills. Pre-skill is divided into 3 (three) parts: reflective motion, sense integration and motion pattern formation, while skill development includes refinement of motion, appearance and setback. Motor movement in preschool children is divided into 2 (two) major parts of motor is rough and fine motor. Gross motor has movement properties controlled by large muscles, while fine motor has directed to the coordination of motion and emerging beauty of motion, movement is controlled by small muscles Johnston & Halocha (2010: 54) fine motor skills are those manipulative skill that involve small movements and parts of the body, such as picking un, feeding themselves, threading, drawing, cutting and dressing. Fine motor skills develop slighty later than gross motor skills need ptience and practice to develop. Cameron et al. (Keifer, 2015: 3) states that fine motor skills refer to the small muscles in the hands and fingers that are responsible for tasks such as picking objects up and grasping a pencil. Children according to Payne & Isaacs (2012: 11) state that fine movements are primarily governed by the small muscle groups. Many movements performed with the hands are considered fine movements for the production of fingers and hand movements According to Madrona (2014: 10) states that the aim of motor development is to achieve the self-control of the body of the body so that we are able to exploit all its possibility of action. This development is shown through motor function, which is the basis for the development of them. Gessel and Ames (Slamet Suyanto 2005: 51) that motor development in children generally follows eight general patterns: 1) continuous from simple movements to complex, 2) having the same sequence pattern, 3) cell and nerve maturity, 4) from coarse motor movement to fine motor movement, 5) from reflex motion to coordinated motion, 6) development from head to tail, 7) is distal Proximo 8) is coordinated when the horizon is crosslateral, whereas according to Grineski (Brewer, 2007: 285) states that A developmental appropriate program of physical education is based on there principles 1) motor skills development in sequential and age related, 2) Children Progress through similar sequences of motor development: and 3) the rates at which the child progress of motor development varies. Motor skills are strongly influenced by the element of strength (strength), anticipation (precision) and accuracy (timing). Motor skills in children of the same age, same sex does not necessarily have the same ability. According to Hurlock (1978: 162) that motor skills in children are very useful as a tool for social adaptation and acceptance to gain independence and recognition within the group.

The development of the child's motor begins from the motion reflex that is after birth and will turn into a conscious movement. The motion of reflex after birth is necessary to sustain life and the increasing age of this reflex motion will decrease. Changes This function is due to the role of the nerves getting bigger with the increasing function of the brain that impacted the development of other

functions which one of them is the development of motor skills especially given the stimulation by playing, by playing will also affect the improvement of children's creativity(Clausen, 2012: 54). The human brain consists of billions of neurons, in newborns the neurons are not yet connected to each other and will be connected after being given stimuli, observing a particular object, comparing and solving simple starting problems. Heri Rahyubi (2014: 207) states that motion behavior can be divided into the first three parts of motion theory that studies the nerve function that influences motion, the second learns the motion that learns about the skills to gain motion perfection, and third is the development of motion which is a change in motion behavior .

#### CONCLUSION AND SUGGESTION

#### Conclusion

The conclusion of this study are: 1)There is a difference in the effect of the type of birth on motor ability in early childhood P <0.05; 2) Based on the mean difference of children born by Caesar, motor skills are higher than two types of normal or using a pacemaker. As for the type of normal birth is higher motor skills when compared with the type of birth by using a pacemaker.

#### Suggestion

- 1. need further research with more samples
- 2. need to differentiate motor ability of child based on gender

#### REFERENCES

- Brewer, J.A. 2007. *Introduction to Early: Preschool Through Primary Grades*. Upper Saddle River: Pearson Education.
- Clausen, J. 2012. Inquiry and Play Based Experimental Outdoor Education Programming for Early Learning Kindergarten Students: An Action Research Study.
- Crowley, Kevin. 2014. Child Development A Practical Introduction. London: Sage Publications Ltd.
- Heri Rahyubi. 2012. Learning theories and applications of motor learning. Bandung: Nusa Media.
- Hurlock, E. B. 2007 . *Child Development, 6<sup>th</sup> ed*. New York, Mc Grow Hill.
- Johnston & Halocha. 2010. Early childhood and primary education. New York: Mc Grow Copanies.
- Keifer, J. J. 2015. Handwriting and fine motor skill development in the kindergarten clossroom. Tesis, ProQoest LLC.
- Madrona, P.G. 2014. Site Development and teaching of motor skills in early childhood education. *Journal of Arts and Humanities*.http://www.theartsjournal.org/index.php/site/index.
- Payne & Isaacs. 2012. Human Motor Development: A Lifespan Approach. New York McGraw-Hill.
- Slamet Suyanto. 2015. Fundamentals of Early Childhood Education. Yogyakarta: Hikayat Publishing.

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