

Padang International Conference on Educational Management and Administration (PICEMA 2018)

# Analysis of Children's Intellectual Development: A Study at Mawar Kindergarten

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Abstract— Children's development is very important to note, especially their intellectual development. Parents would be proud if their child could grow up to be a smart kid. This study aims to determine the intellectual development of toddlers in TK Mawar. The type of research used is quantitative method with descriptive type or quasy experimental research (quasi experiment) with interactive usage. Based on the analysis of intellectual development of under five children in TK Mawar is not maximal yet.

## Keywords—child intellectual; development analysis

#### I. PRELIMINARY

Early childhood is a unique individual who has a high curiosity and cannot focus his attention for a long time [1]. Early childhood has characteristics that are distinct and different from other children who are above the age of 8, namely, children learn through social participation, the unique person, rich of fantasy, short concentration, experiencing rapid development, having egocentric characteristics, have a great curiosity and begin n to be interested in something new from their environment[2][3]

The childhood of 3-6 years old entered the preoperative age means the period in which the child begins his or her ability to learn. In this stage early childhood experienced 3 changes namely: Age 3-4 years or called experiencing the transition period, aged 4-5 years or called player period (likes to play) and age 6 years or called entering childhood.

Child development is very important to note. Parents would be proud if their child could grow up to be a smart kid. To be able to make our children clever, equip and guide them from an early age will be very helpful. We need to know that the intellectual development of children at an early age is very potential to absorb a variety of new things. For that, we must guide our children to be able to continue to develop their intellect in various ways.

# II. THEORY

# The Nature of Child Intellectual Development

Intellectual is one aspect that must be developed in children. Intellectuals are often synonymous with cognitive, because the intellectual process has much to do with the concepts that children have and relate to how children use their thinking skills to solve a problem. In his life may be the child faced with problems that require the solution of the solution. Solving a problem is a more complex step in the

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child. Before the child is able to solve the problem, the child needs to have the ability to figure out how to solve it.

Intellectual development is also known as the term cognitive development, while the intellectual itself according to Jean Piaget derives from the English term that is intellect, which means reason based on cognitive aspects, especially higher thought processes (Bybee and Sund, 1982). While intelligence or intelligence according to Jean Piaget is defined as the intelligence, that is all the ability to think and act adaptively, including the complex mental abilities such as thinking, considering, analyzing, synthesizing, evaluating, and solving problems[4].

## **Characteristics of Intellectual Development**

- Characteristics of cognitive development of children aged 3 years. In this stage the child will listen attentively to the appropriate story of his time.
  - Mention circle triangles, squares and can show on cool shapes, like stories with puzzles. According to Biewitt, this child's 1994 period often shows an understanding of the basic comparisons of size, form, can name the larger objects of both observable bends.
- 2. Characteristics of cognitive development of children aged 4 years. This child's stage know the difference between two words that pronunciation is similar. Example: footfeet, walls, able to mention 18 to 20 letters, children can print a few names and write his own name. According to Goodall, 1984 this stage children start reading simple books, such as booklet numbers, animals, and books pictorial.
- 3. Characteristics of cognitive development in children aged 5 years. This child's stage recognizes the numbers 1 to 10, knowing the purpose of the calendar, recognize and can mention the unit of money and counting money, want to learn many new things. According to Mix figures, hutten locker and levine, 1996 states that at this stage the child counts by issuing votes up to twenty or more children counting to one hundred.
- 4. Characteristics of cognitive development in children aged 6 years. A sense of curiosity arises, a sense of wanting to learn, humor and compassion. According to hyson, 2003, naeyc, 2002. This stage marks the beginning of a formal school-oriented subject. andit should be noted that formal academic activities at this stage are deemed incompatible



with the stage of development by various early childhood educators.

# **Factors Affecting Intellectual Development**

## 1. Heredity Factor

Since in the womb, the child has the properties that determine his intellectual work power. Potentially the child has brought the possibility, whether it will be the ability to think normal, above normal, or below normal. However, this potential is not developed or manifested optimally if the environment does not provide opportunities for growth. Therefore, the role of the environment greatly determines the intellectual development of the child.

#### 2. Environmental Factors

There are two elements of the environment that is very important role in influencing the development of children's intellect, namely family and school.

#### a. Family

The most important intervention done by the family or parents is to provide experience to children in various areas of life so that children have a lot of information that is a tool for children to think. The ways in which, for example, provide opportunities for the child to realize his ideas, appreciate those ideas, satisfy the curiosity of the child in such ways as to provide reading, skill tools, and tools that can develop children's creativity. Member chance or experience will demand the attention of parents.

#### b. School

School is a formal institution that is given responsibility for improving children's development including child's thinking development. In this case, the teacher should be aware that the intellectual development of the child rests in his hands.

# **Issues - Issues in Intellectual Progress**

Learning disorder problems are often found in children. This problem can arise both in school and outside of school. Children who experience learning disorders will usually have attention concentration disorders (concentration), memory disorders, reading disorders, writing, counting and others. We need to remember, that children who experience learning disorders are not suffering from a disease, but they only have problems in the learning process. The impact experienced by children who experience learning disorders not only in the process of growth, but also affect the process of interaction with the child's environment. Sometimes even family harmony can also be disrupted. Among the two parents blame each other, feel frustrated, angry, disappointed, desperate, guilty or reject the incident that befell them.

#### 1. Reading Disorder

Reading disorder (dyslexia) is a condition of learning disabilities in children caused by difficulties in performing reading and writing activities. However, the child does not experience problems in the development of other standard capabilities, such as intelligence and analytical skills. Dyslexia

can occur due to conditions of unstable brain biochemistry. In some cases it is also caused by a derivative factor of the parent. Dyslexic patients will not physically be seen as sufferers. Dyslexia is not only limited to the inability of a person to compose or read sentences in reverse order but also in a variety of sequences, including top to bottom, left and right, and difficult to accept commands that should be continued to the memory of the brain.

# 2. Writing Disorder

Disorders of writing (dysgraphia) caused by neurological factors, the presence of brain disorders in the left front associated with the ability to read and write. Children experience difficulty in automatic harmonization between the ability to remember and master the muscle movement of writing letters and numbers.

# 3. Counting Problems

Diskalkulia is a learning disorder related to numeracy or arithmetic abilities. Discipled children find it difficult to solve math problems and find it difficult to grasp the basic concepts of arithmetic. Problems given according to his age ability, but difficult to solve by discalculate children. Diskalkulia is also known as "math difficulty".

Stimulation to Help Early Childhood Intellectual Development According Lilis Suryani, how to provide stimulation to help the cognitive / intellectual development of early childhood is through the game as follows:

- a. Play the beam
- b. Floor Ladder Snake
- c. Meronce
- d. Role play
- e. Storytelling
- f. Math game
- g. Game Science

According to research results Hastuti, et al (2010) There is real and positive relationship between psychosocial stimulation and cognitive development. This means that the higher the psychosocial stimulation is given, the higher the child's cognitive development. Analysis of Guidance and Problems of Intellectual Development of Children One counseling activity in kindergarten can serve as development and prevention, for example when the teacher carrying out the activities of BK by playing the role can prevent the behavior of children who like to take the goods without the permission that have. At the same time, playful role activities can realize the development function. With the role play activities, the potential of the child can be channeled through the role of the child dilakoni. Children imagine, create, develop behavior dare to appear in public. Thus, in one BK activity, it reaches out to two functions of BK, namely: the prevention function for the targeted child, and the development function for the child with guidance activities can channel the various potentials and creativity[5].

In applying guidance activities in kindergarten, a kindergarten teacher should pay attention to some suggestions put forward by Montesori on learning in kindergarten with the characteristics: short, simple, objective. Brief is meant for the



use of words by the teacher when giving guidance, meaning: that teachers use the language tutorials as short as possible, to remove the words that are not useful. Simple to connect with the first characteristic, it means the teacher should throw away things that are not true. This is achieved by choosing words so that the teacher's description becomes simple. The objective in question is that in providing teacher guidance does not include personal subjectivity[5].

#### III. CONCLUSION

Intelligence or intelligence according to Jean Piaget is defined as intelligence, that is all ability to think and act adaptively, including complex mental abilities such as thinking, considering, analyzing, synthesizing, evaluating, and solving problems.

Intellectual is one aspect that must be developed in children. Intellectuals are often synonymous with cognitive, because the intellectual process has much to do with the concepts that children have and relate to how children use their thinking skills to solve a problem. 1) Factors Affecting;2) Intellectual Development; 3) Heredity Factors; 4). Environmental Factors;5) Elements of the environment are very important role in influencing the development of children's intellect, namely family and school. Issues - Issues in Intellectual Development 1) Reading Disorder; 2) Reading disorder (dyslexia) is a condition of learning disabilities in children caused by difficulties in performing reading and writing activities.2) Writing Disorder, Disorders of writing (dysgraphia) caused by neurological factors, the presence of

disorders of the left front brain associated with the ability to read and write; 3) Counting Problems,

Diskalkulia is a learning disorder related to numeracy or arithmetic abilities. Discipled children find it difficult to solve math problems and find it difficult to grasp the basic concepts of arithmetic. According to Lilis Suryani, how to provide stimulation to help cognitive / intellectual development of early childhood is through game as follows: a, play beam, b. snake ladder floor, c. meronce, d. role play, d. storytelling, e. game math, f, game science. In applying guidance activities in kindergarten, a kindergarten teacher should pay attention to some suggestions put forward by Montesori on learning in kindergarten with the characteristics: brief, simple, objective.

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