

# Analysis of the Impact of Online Learning on Cognitive Ability of Children Aged 5-6 Years in Nafiri Kasih Kindergarten Sibuntuon

Dorlince Simatupang<sup>1</sup>, Srinahyanti<sup>2</sup>, Rizki Ramadhani<sup>3</sup>, Purnama R Sihombing<sup>4</sup>  
{dorlince@unimed.ac.id<sup>1</sup>}

Faculty Of Education, Universitas Negeri Medan<sup>1234</sup>

**Abstract.** This research was executed with the purpose of understanding the effect of online learning at the cognitive competencies of student elderly five until six years. Information were collected using interview data series technique and interview. The validity of the data is checked through triangulation of methods and sources. The consequences confirmed the cognitive skills of youngsters at Nafiri Kasih Kindergarten for the duration of the net studying pandemic in phrases of citing, including and subtracting simple, bringing up, grouping, sorting objects based on shape, shade and length. The fulfillment of children's cognitive development at this school has decreased because teachers continually try to supply obligations to students that are able to stimulate children's cognitive competencies.

**Keywords:** online learning, cognitive, abilities

## 1 Introduction

According to Sujiono (2013, p. 53) childhood is the golden age, where physical, motor, social-emotional, cognitive and language growth and development take place rapidly. Growth and development starts from birth, even since the child is still in the womb. All aspects of child development develop rapidly in early childhood, so proper stimulation and learning are needed for optimal child growth. The results of research conducted by Dr Benjamin S. Bloom, Professor of Education, University of Chicago revealed that at the age of 4 years 50% of a child's intelligence capabilities have been formed. Children's intelligence at the age of 8 years has reached 80% and at the age of 18 the child's adult intelligence has been completely formed (Unizah, 2017). After the Covid-19 pandemic, direct learning was replaced with online learning. This is done to break the chain of transmission of the virus. The Coronavirus Disease (Covid-19) pandemic that hit several countries including Indonesia in early 2020, in order to prevent the spread of transmission, the Ministry of Education and Culture (Kemendikbud) issued a circular regarding the prevention and handling of Covid-19. First, Circular Number 2 of 2020 concerning Prevention and Handling of Covid-19 in the Ministry of Education and Culture. Second, Circular Number 3 of 2020 concerning the prevention of Covid-19 in Education Units. Third, circular letter Number 4 of 2020 concerning the Implementation of Education policies in the Emergency Period for the Spread of Coronavirus Disease, which among other things contains directions regarding the learning process from home.

## **2 Research Methods**

The short of research used in this research is descriptive research with a qualitative method. In descriptive research, the researcher does not provide treatment, manipulation or change to the variables studied, but describes a condition that takes place within the area.

The research was conducted at Nafiri Kasih Sibuntuon Kindergarten which is located on Jl. Toruan Sibuntuon Village, Hamlet II, Kec. Uluan, Kab. Toba, Prov. North Sumatra. The research starts on May 03, 2021 until July 02, 2021 through the initial stages, namely visiting the research site directly

### **Data collection with interview and observation techniques.**

Online learning at Nafiri Kasih Kindergarten has been implemented after the Covid Pandemic began to enter the red zone, but when the principal and educators saw that most aspects of child development were declining, therefore, the school implemented face-to-face learning for 2 days a week, Monday and Tuesday. When face-to-face learning is implemented, schools also reduce children's learning hours, which used to be 4 hours, now only 3 hours. This face-to-face learning always applies health protocols, such as washing hands, wearing masks, and keeping a distance. Based on the results of research and data analysis on the impact of online learning on student's cognitive competencies at this school, it can be concluded that the cognitive development of Kindergarten students during online learning is in terms of the competency to sort and pronounce numbers one until twenty, adding and subtracting simple numbers, grouping, sorting and naming objects based on color, size and shape are included in the capable and moderately capable categories. The achievement of cognitive competencies of Kindergarten student is categorized as capable and quite capable because educators always give assignments online and the school makes breakthroughs so that children can go to school. Parents also still want to give their time to teach their children even though sometimes there are parents who don't teach their children at all at certain times because their parents are tired and busy working.

## **3 Result and Discussion**

The effect of the online learning on kid's cognitive competencies is that there are a few parents who do now not guide or participate in children's learning. students do not do the assignments given by the trainer because there may be no parental steerage, youngsters feel bored and every now and then aren't interested by getting to know this makes kid's cognitive talents less properly evolved

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Based on the results of research and data analysis on the impact of online learning on children's cognitive abilities in Nafiri Kasih Sibuntuon Kindergarten, Toba Regency, it can be concluded that the cognitive development of Nafiri Kasih Kindergarten students during online

learning is in terms of the ability to sort and pronounce numbers 1-20, adding and subtracting simple numbers, grouping, sorting and naming objects based on color, size and shape are included in the capable and moderately capable categories.

The achievement of cognitive abilities of Nafiri Kasih Kindergarten children is categorized as capable and quite capable because educators always give assignments online and the school makes breakthroughs so that children can go to school even though in the midst of the current Covid pandemic. Parents also still want to give their time to teach their children even though sometimes there are parents who don't teach their children at all at certain times because their parents are tired and busy working.

The impact of the online learning system on children's cognitive abilities is that there are some parents who do not support or participate in children's learning. Students do not do the assignments given by the teacher because there is no parental guidance, children feel bored and sometimes are not interested in learning this makes children's cognitive abilities less well developed.

In the development of cognitive aspects, there are factors that can affect children's cognitive abilities, namely family and school environmental factors. Supporting factors in children's cognitive development, namely the environment, a good family environment will support children's cognitive abilities and a good school environment will also support children's cognitive abilities. Therefore, teachers and parents must provide appropriate stimulus and teaching to children.

#### **4 Conclusion**

The cognitive competency of children during online learning decreases. Children prefer to study at school because children can meet their friends, teachers and can play while learning. At school, children can learn directly with their friends, children are more concentrated when their teacher gives lessons to them and children can ask friends when they miss learning activities.

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#### **References**

- [1] Nursalam dan Ferry Efendi. (2008). Pendidikan dalam Keperawatan. Jakarta: Salemba Medika.
- [2] Nurdyansyah. (2016). Inovasi Model Pembelajaran. Sidoarjo: Nizamia Learning Center
- [3] Munir. (2017). Pembelajaran Digital. Bandung: Alfabeta
- [4] Sujiono. (2013). Konsep dasar pendidikan anak usia dini. Jakarta: PT Indeks
- [5] Syamsu dan Sugandhi. (2011). Perkembangan peserta didik: Jakarta: Rajagrafindo Persada