

# The Impact of Online Learning in Elementary School

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**Abstract.** Many factors influence the development of elementary school students and their education. The online learning he experienced was one of them. This is due to the lack of stimulation during online learning, many teachers have difficulty in making learning modules and managing distance learning, the busyness of parents due to work results in a lack of assistance in learning and playing for children. This study was aimed at determining the developmental disorders in elementary school children during online learning. The participants in this study were teachers and parents at four private elementary school institutions in Medan. The research method used is qualitative with descriptive techniques and content analysis. Collecting data through field observations and interviews. ATLAS.ti application used to displays research data. Research findings show that online learning has an effect on psychosocial development disorders of children at elementary school age, namely the limited interaction of children with other people and reduced communication skills. This disorder has implications for the alienation of children in their daily social life.

**Keywords:** online learning, students growth.

## 1 Introduction

Due to the COVID-19 pandemic, the level of achievement in children's education has decreased [1]. Child development is substantially influenced by environmental stimulation. The disruption of child development has been caused by the lack of stimulation provided by online learning. Numerous educators struggle to create learning modules and manage distance learning. Children lack assistance in learning and playing due to their parents' work-related preoccupations [2]. The limited interaction between teachers, parents, and children has a significant impact on children's incomplete developmental tasks (achieved).

Studies on online learning as a result of the COVID-19 pandemic reveal a variety of life problems, particularly in the field of early childhood education, which is one of the sectors most severely impacted [3]. During the COVID-19 pandemic, the Indonesian government enacted a policy requiring parents to work from home (WFH) and children to study from home. According to research findings, this policy causes psychological trauma, leading to increased parental stress and child trauma [4]. During the pandemic, online learning should

serve as a substitute for direct instruction. However, online learning does not produce satisfactory outcomes for children, particularly in Indonesia's early childhood education.

Based on swift decisions, the education system in Indonesia is implementing online learning in early childhood education. This naturally gives parents the impression of shock. Whether they like it or not, parents must educate their children at home. According to the findings of several studies, many parents are unwilling to accompany their children as they use this online learning system [2]. The primary cause is the conflict between work and teaching children. Therefore, the competence of some parents in educating their children is inferior to that of a teacher. Consequently, parents are less capable of guiding their children's online learning during this COVID-19 pandemic.

Teachers, like parents, face obstacles when conducting online learning. The direct interaction learning model that has been prevalent for a long time has become one of the reasons why teachers employ a "turn off style" when dealing with interaction- and touch-free online learning [5]. Teachers must also re-learn, find ideas and strategies for online learning, so that children can access learning materials from a distance. In the meantime, it is well known that play-based learning is a defining characteristic of early childhood education for fostering children's development. Therefore, parents who aren't prepared to go with their children and teachers who don't know how to set up and manage online learning are both detrimental to children's development.

This paper aims to supplement previous research on the relationship between online learning and child development by analyzing how online learning during the COVID-19 pandemic can result in optimal developmental disorders in children [6]. In accordance with this, this study answered three questions. (a) how did children, parents, and teachers learn during the pandemic (teaching-learning process, challenges encountered, how to overcome challenges)? (b) how did online learning become a factor that influences child development? (c) what is the impact of online learning on children's development? These three questions provide direction for comprehending that the COVID-19 pandemic has promoted the improvement of digital literacy, but also has an effect on children's developmental disorders.

Early childhood is affected by the obstacles that arise in online education. The consequence is a disruption in the psychosocial development of young children [7]. Online education has an effect on psychosocial development disorders in children. Every parent should be concerned that their children still require parental assistance during online learning. Parents' mental preparedness and children's learning support are required at this time. Teachers cannot impart knowledge directly to students. Therefore, parents are children's only hope during online learning.

During the COVID-19 pandemic, online learning has complicated the teaching-learning process in society [8]. Children have developed developmental disorders due to school closings and the introduction of online learning. The need to maintain a physical distance as part of a health protocol to protect the public from the dangers of COVID-19 has created new issues in the education sector [9]. Distance online learning has replaced face-to-face instruction. The limitations of internet access, the lack of devices owned, the mastery of digital literacy, the absence of interaction and assistance, and the absence of learning innovations have rendered distance online learning ineffective and ineffective in terms of its impact [10],

[11]. Learning outcomes are affected by a variety of issues pertaining to internet access, devices, digital literacy, interaction, mentoring, and innovation in distance education.

Access to the internet, the availability of devices, digital literacy, parental support, and teacher innovation in learning have affected the quality of distance online learning, which has an effect on the development of students [12]. During a pandemic, the most effective alternative education strategy is online education. Complaints and difficulties encountered by children, parents, and teachers were among the various responses to online education. so that it has an effect on childhood developmental disorders [8].

Disorders of child development can be viewed from three perspectives: biological, cognitive, and psychosocial development. The process of a child's biological development involves physical changes to the body. Physical characteristics are associated with body and brain development, sensory capacity, motor skills, and health. Consequently, the process of cognitive development in children involves changes in a child's individual intelligence and way of thinking. Cognitive aspects examine attention, memory, problem-solving, thought processes, reasoning (including moral reasoning), creativity, and language. Psychosocial aspects consist of the formation of emotions, personality, and social relationships [15]. This study will examine the relationship between developmental disorders in the psychosocial aspects of early childhood and online learning.

## **2 Methodology**

During the COVID-19 pandemic, online learning has complicated the teaching-learning process in society. Children have developed developmental disorders due to school closings and the introduction of online learning. The need to maintain a physical distance as part of a health protocol to protect the public from the dangers of COVID-19 has created new issues in the education sector [12]. Distance online learning has replaced face-to-face instruction. The limitations of internet access, the lack of devices owned, the mastery of digital literacy, the absence of interaction and assistance, and the absence of learning innovations have rendered distance online learning ineffective and ineffective in terms of its impact [13]. Learning outcomes are affected by a variety of issues pertaining to internet access, devices, digital literacy, interaction, mentoring, and innovation in distance education.

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processes, reasoning (including moral reasoning), creativity, and language. Psychosocial aspects consist of the formation of emotions, personality, and social relationships [15].

**Table 1.** Characteristics of Early Childhood Participants

| No    | Age           | Grade        | Gender |        |
|-------|---------------|--------------|--------|--------|
|       |               |              | Male   | Female |
| 1.    | 4-6 years old | Kindergarten | 46     | 37     |
| 2.    | 3-4 years old | Play Group   | 10     | 17     |
| 3.    | 0-3 years old | Daycare      | 10     | 5      |
| Total |               |              | 66     | 125    |

**Table 2.** Participant Characteristics of Parents and Teachers

| No    | Participant            | Gender |        |
|-------|------------------------|--------|--------|
|       |                        | Male   | Female |
| 1.    | Parents                | 1      | 7      |
| 2.    | Daycare Teachers       | 0      | 1      |
| 3.    | Play Groups teachers   | 0      | 1      |
| 4.    | Kindergartens Teachers | 0      | 5      |
| Total |                        | 1      | 14     |

This study will examine the relationship between developmental disorders in the psychosocial aspects of early childhood and online learning. The results of the data are adjusted based on the direct interview instrument for teachers and parents.

**Table 3.** Parent and Teacher Interview Instruments

| No | Aspects                            | Questions   |
|----|------------------------------------|---|
| 1. | Online Learning                    | a. What do parents think about online learning?<br>b. How many times in one week?<br>c. What are online learning methods?   |
| 2. | Online learning constraints        | Disadvantages and advantages of online learning?  |
| 3. | Developmental psychosocial aspects | a. How is psychosocial development for children in online learning?<br>b. What is the best method for developing children's psychosocial skills?<br>c. How is the learning model in developing child's psychosocial development?<br>d. What are the child's psychosocial barriers during online learning? |

### 3 Result and Discussion

#### Online Learning

This study produced a number of findings, including a description of online learning during the pandemic, the obstacles that arise during online learning, and the influence of online learning on the psychosocial development of young children. Online education during the COVID-19 pandemic at early childhood education institutions in Indonesia as a solution to educational issues. A description of online education during an epidemic. Figure 1 illustrates the findings of this study.

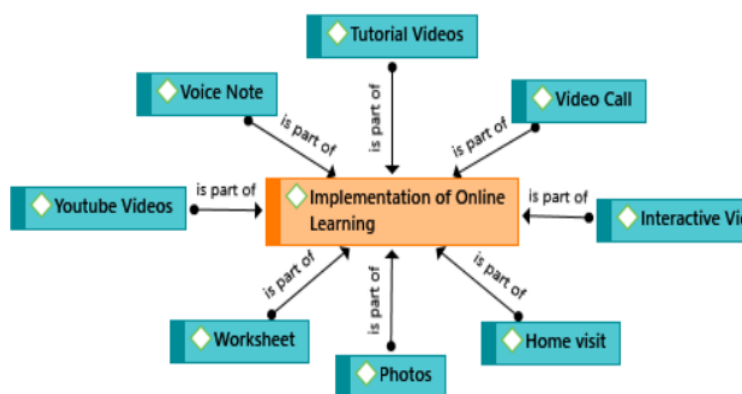


Fig. 1. Implementation of Online Learning

**Figures. 1** depicts the application of online learning in Indonesian early childhood education. Video calls with teachers, voice messages, watching YouTube videos, worksheets given to parents for their children to complete at home, video tutorials, photos of activities sent via social media, and teacher visits to homes are all applications of online learning. Occasionally, teachers also conduct monthly home visits to monitor students. This is to directly monitor the development of the child at home.

Parents and children use mobile phones to communicate and interact with teachers during distance learning. The implementation of online learning is carried out in five days, Monday to Friday. This was conveyed in an excerpt from an interview with one of the female teachers from Kindergarten, as follows:

"We made video calls for the week together. first session with three children together. There is another worksheet session and watching YouTube. Mondays are used for video calls together. Meanwhile, Tuesdays, Wednesdays, and Thursdays are used for independent video calls. I adjust the video call activities to the activities of parents and children. Some are done in the afternoon, evening, and morning with the goal of having all children video call together in one week. (Interview with female teachers from kindergarten, Thursday, April 1, 2021) "

Learning through video calls for children aged 3 to 6 years is carried out in two sessions. Each session is divided into seven children. This is done because conducting developmental assessments and online learning at the same time becomes difficult and ineffective. Furthermore, parents send a daily report on their child's progress to school, as well as the results of the child's assignments for the week. This can be seen from the results of direct observations via online using video conferencing, namely Google Meet with children.

This is different from children aged 2 years and under (daycare), because it is very difficult to apply online learning. Instead, teachers make home visits to students' homes twice a month. This activity is focused on detecting children's growth and development, such as the ability to walk, their weight, crawling, health and others, as stated by one of the daycare teachers, namely:

"During school closures due to the pandemic, daycare teachers must make visits to children's homes." This is done so that we know as well as record the child's development and growth while at home. We visit our children at their homes once every two months. (Interview of female teachers from Daycare, March 31, 2021). "

### Online Learning Constraints

In order to extend the learning environment of the classroom to the home, the teacher assigns worksheets as homework to the students. Video tutorials, interactive videos, and YouTube can also be utilized for educational purposes. Despite the fact that online learning is an option during the COVID-19 pandemic, the findings indicate that online learning faces a number of obstacles. Obviously, this will have an effect on child development. **Figure 2** depicts some of the issues that arise when individuals attempt to learn online during a pandemic.

As depicted in **Figure 2**, it is known that online learning encounters a number of obstacles, including the following: 1) changing (inconsistent) lockdown policies; 2) busy parents; 3) poor signals; and 4) limited teaching ability. 5) the work is not in accordance with the teacher's instructions; 6) children do many assignments at night when their parents return from work; 7) children's communication with others is reduced; 8) most of the children's tasks are completed by their parents; 9) children are frequently late in collecting assignments; 10) parents feel burdened with teaching assignments; 11) children are lazy; 12) children are easily sleepy.

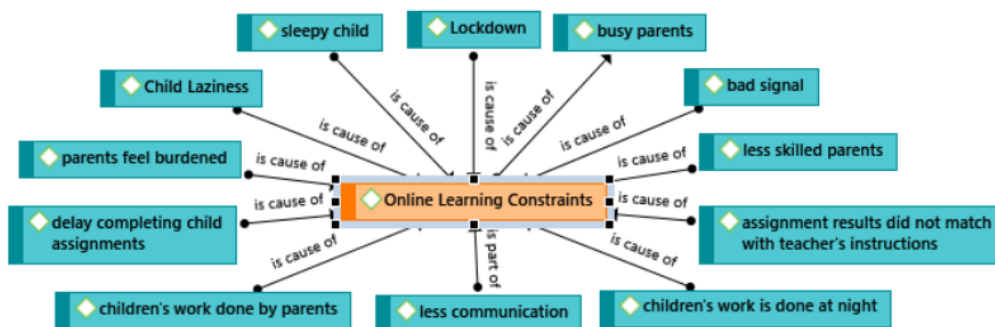


Fig. 2. Online Learning Constraints

The delivery of children's assignments, which is frequently delayed by parents; changing lockdown policies; busy parents; the laziness of children; parents who feel burdened by their

children's tasks; and the results of uncompleted tasks are all negative signals. Children are sleepy because they are required to study at night; parents complete their children's homework; parents lack parenting skills; and parents and children have poor communication [16].

Obviously, online learning requires high-quality media and access in order for learning activities to be implemented as expected. Nonetheless, learning is not always successful [17]. It appears there is a signal constraint issue. This disrupts learning and decreases the child's concentration. Then, during the pandemic, government policies frequently change as the coronavirus spreads. So that children and parents become confused, children are sometimes required to attend school, while other times schools are closed and then reopened.

These obstacles have negative effects on children as well. Additionally, children are required to collect assignments via the device. Another effect is that children are addicted to their electronic devices and spend a great deal of time on YouTube. This is evident from the results of interviews with a number of parents who stated that YouTube learning made their children addicted to watching and that they did not open YouTube links as school assignments.

"The difficulty lies with devices. Children are unwilling to let go of their cellphones." I also recommend anti-radiation glasses to reduce the negative effects of excessive cellphone use. When using my cellphone, I wear anti-radiation glasses, but when it's time to eat or pray, I remove the phone and return it after a break. (Interview with Playgroup Parents, Thursday, April 1, 2021) "

### The Impact of Online Learning on Children's Psychosocial Development

Aspects of children's psychosocial development were found to be disrupted by distance learning, according to the findings of the study. Psychosocial aspects of developmental disorders include the development of emotions, personality, and social relationships [18]. Cases found in children included those who were more aggressive than usual, easily irritable and angry, lacked discipline, lacked socialisation, exhibited laziness, were shy, preferred independence and solitude, cried frequently, and stopped learning. **Figure 3** depicts the impact that online learning has on the psychosocial development of children.

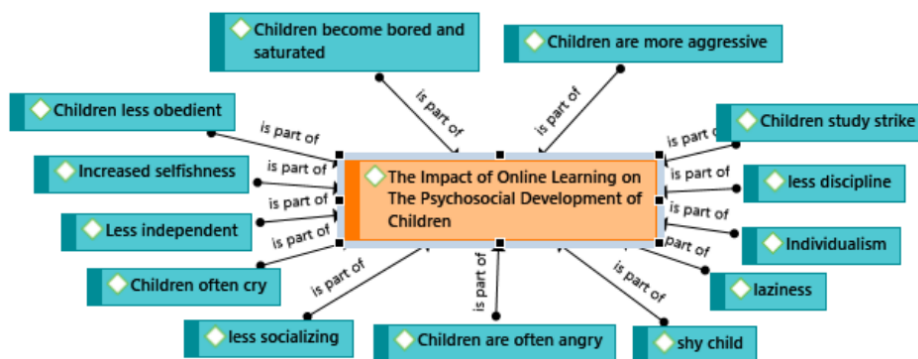


Fig. 3. Online Learning Constraints

According to the diagram in Figure 3, the impact on children's psychosocial development is classified as follows: 1) children are easily bored and bored at school; 2) children are more aggressive; 3) children are less obedient in following instructions; 4) children tend to be individuals; 5) children cry more frequently; 6) children lack socialisation; 7) children are easily angered; 8) children are lazy in doing assignments; 9) children are less disciplined; 10) children frequently stop learning.

Children struggle to socialise while learning online [19]. Where children are more at ease playing with cellphones as playmates. When a friend comes over, the child prefers to play alone. Of course, because of the decline in children's social development in the surrounding environment, this should be of greater concern to parents [1],[20].

Online learning has a negative impact on children's development [21]. During the implementation of online distance learning, some children experienced developmental disabilities. According to the findings, children have developmental disabilities in psychosocial aspects [22]. This is based on field findings involving several teachers and parents from five Indonesian school institutions. This situation causes significant changes in children. At this age, children should be developing to their full potential. As a result, online learning is regarded as less effective for the development of children.

In accordance with the findings of research indicating that online learning is ineffective for early childhood because the internet network is less stable [21], children do not concentrate when paying attention to the teacher only on the application screen, and they are not particularly interested in online learning because they require direct attention throughout the process. During online learning, teachers cannot provide direct attention to students [6], [23].

Online education influences aspects of psychosocial development. Aspects of children's psychosocial development were found to be disrupted during online learning, according to the study's findings. Psychosocial aspects of developmental disorders include the development of emotions, personality, and social relationships [4] [24]. Cases found in children included those who were more aggressive than usual, easily irritable and angry, lacked discipline, lacked socialisation, exhibited laziness, were shy, preferred independence and solitude, cried frequently, and stopped learning. Online learning has a significant impact on the social and emotional development of young children [7], [25], [26].

Children are less cooperative because they rarely play with one another [27]; lack of tolerance; lack of socialising with friends; limited learning at home; children's emotions occasionally feel bored and sad; children also miss their friends and teachers. Due to the normal learning process, verbal aggression has been documented. The findings of this study can be used as a guide for evaluating the implementation of online learning or learning at home, given that online learning will continue to grow in popularity [28].

## **4 Conclusion**

The results of the study indicate to parents that the quality of development that occurs during online learning has declined. The manifestation of developmental disorders in children is a decline in psychosocial development. Some of the factors that contribute to it are parents' busy schedules; difficulty signalling; nighttime learning; children who are lazy, sleepy, and bored; a



lack of ability to teach parents to children; a lack of communication between teachers and parents; parental pressure; and poorly executed assignments. This research has implications for the prevention of childhood developmental disorders. This is done in order to prepare parents to be the most effective educators for optimal child development at home.

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