



**Jurnal Pendidikan Usia Dini**  
http://journal.unj.ac.id/unj/index.php/jpud  
Volume 18. Number 1. April 2024  
e-ISSN (Online Media): 2503-0566  
P-ISSN (Print Media): 1693-1602

## The Effectiveness of Online Learning as A Form of Critical Pedagogic Transformation: The Perceptions of ECCE Teachers and Parents

**Della Raymena Jovanka<sup>1</sup>**  
*Universitas Terbuka, Indonesia*

DOI: <https://doi.org/10.21009/JPUD.181.01>

Accepted: January- March 2024; Published: April 30<sup>th</sup>, 2024

**ABSTRACT:** Regarding their competence, teachers must be able to improve their professional competence by utilizing technology and communication (ICT) in accordance with the demands of 21st century competence. Furthermore, the nation's problems in the field of education and professionalism include several main problems that require more applicable and quality training for teachers and parents. This research aims to measure the perceptions of ECCE parents and teachers regarding the digital competence (use of technological devices and ability to access the internet) of online learning that they carry out, whether the learning is effective and able to measure children's competence or competence still needs to be improved to make it even better. The method that will be used in this research is quantitative research with a survey method in the form of a questionnaire. Participants are focused on ECCE teachers and parents who have early childhood children, especially kindergartens and elementary school grades 1 and 2 (aged 4 to 8 years). The results of the data analysis, of this research show that both parents and teachers feel face-to-face learning is more effective than online learning. This condition is supported by data that both parents and teachers feel obstacles and doubts that online learning can measure children's competence.

**Keywords:** professional development, digital learning, digital competencies, technology in learning

---

<sup>1</sup> Corresponding Author:  
Universitas Terbuka Indonesia  
Email: dla@ecampus.ut.ac.id

## 1 INTRODUCTION

The era of disruption 4.0, coupled with the COVID-19 pandemic conditions, has an impact not only on technology and industry but also on the implementation of education. Education that was initially carried out face-to-face in the classroom changed entirely online. The opportunities and challenges of teachers in learning as a form of transformative pedagogics, especially in this pandemic era, are how teachers can "attend" and be felt by students even though they are not face to face in class. Teachers must be able to motivate students continuously to avoid getting bored with the same methods and media, especially when participating in online learning.

Concerning their competencies, teachers should be able to "upgrade" their professional competencies by using technology and communication (ICT) following the demands of 21st-century competencies. This condition is under the No Child Left Behind Act (NCLB), which states that for teachers to be said to be of high quality, they should participate in activities that can improve teacher knowledge and professionalism, namely through activities that can increase their knowledge of the subjects they teach, conformity with content standards, and a deeper understanding of learning strategies. Meanwhile, when referring to the Every Student Succeeds Act (ESSA), professional development is aimed at teachers and involves all school staff, including the principal, through a residency program for new teachers to increase clinical training opportunities for teachers (Advocates, 2015).

Studies on online learning have been conducted widely. Most studies focus on designing systems for Mobile Learning, followed by a combination of effect evaluations of mobile learning. Most studies are conducted in the field of informal education or primary education (ages 5-11 years). Technology devices are used to help students carry out learning (Crompton et al., 2016). Studies conducted by Aparicio et al. show that the quality of information and services determines the use of e-learning systems. Students' perseverance, stamina, tenacity, and enthusiasm when participating in online learning, information quality, system quality, and service quality affect user satisfaction in the context of online learning systems. Furthermore, user usage and satisfaction are determinants of the success of online learning systems, which contribute to learning performance (Aparicio et al., 2017). Further, online learning has changed from Fully Online to using technology to convey material without depending on place and time (Daniels et al., 2019).

Related to online learning carried out by teachers, one of the contemporary problems in education today is student motivation (Alkaabi et al., 2017). According to Alkaabi et al., (2017) various experts from various fields, such as biology, psychology, and education, have studied student motivation. The conceptual framework regarding student motivation focuses on that student's cognition, needs, and emotions. The hypothesis in their research is that reports about individual students include an understanding of the situations they experience, the need to interact dynamically, and the cognition and emotions that lead them to respond to the learning process. Problems regarding student

motivation are certainly felt by almost all teachers in big cities and regions. It is inseparable from the creativity of teachers in delivering subject matter. The more creative and innovative the teacher chooses learning methods and media, the more motivated students will learn. Student learning motivation is also influenced by the teacher's caring attitude and attentiveness to individual requirements, as well as the selected educational approaches and media.

Furthermore, the nation's problems in education and professionalism cover several main problems, teachers need more applicable and quality training. Many teachers still teach using the old (traditional) way even though their students are born in the digital age. In addition, the literacy culture among teachers is still fragile, and the textbooks/subject materials used still include abilities lower order thinking skills (LOTS) (Abbas, 2015, 2020). Failure to treat ECCE can result in developmental delays and disabilities and hinder children's optimal development and performance throughout their lives (Billingham & Billingham, 2019).

In addressing the problem of teacher competence and professionalism in India, one of the contents of The National Education Policy 2020 is that by 2030, the minimum qualification for teachers who will teach is a bachelor's in education, which is taken for four years. It is because they view the child's life as an "organic continuum" so that the focus is not only on the need to improve thinking skills but also efforts to encourage their critical thinking skills. Meanwhile, the efforts made by the US government through the NCLB policy, which was later replaced with ESSA regarding teacher professionalism, are to set minimum standards for teacher qualifications. NCLB requires teacher professional development based on the core subject matter of learning, while ESSA places more emphasis on all areas of learning, not just the core material (Majumder, 2020)(Mathis & Trujillo, 2016)

The problems experienced by teachers when conducting online learning are the difficulty of teachers in accessing technology, lack of school facilities for the implementation of e-learning, difficulty in explaining material online, limited internet access, economic background, and lack of support from parents of underprivileged students. However, teachers also feel that the e-learning system greatly eases their responsibilities in teaching and learning during the COVID-19 outbreak. The strategy carried out by teachers is to use online chat, video conferencing platforms, and a combination of online chat and video conferencing in the online teaching and learning process (Lestiyawati, 2020).

Studies on instructors' perspectives of online learning show a positive correlation between technology acceptance and eLearning during COVID-19 in Pakistan. Respondents responded favorably about online learning during the situation lockdown and its impact on students' academic performance (Alhumaid et al., 2020). Teachers and students still determine the success of the teaching and learning process. Students are expected to be able to build their knowledge, not just be "fed" by the teacher. On the other hand, teachers must also have in-depth knowledge of the material they teach. Technology

is more of a tool to facilitate online learning according to student needs (Cheok et al., 2017).

Related to student responses to online learning, a study conducted by Vitoria et al. showed that students felt the benefits of using web-based learning modules, especially in increasing understanding, independence, self-discipline, learning motivation, and interaction between students and teachers, as well as ease of use. In addition, students also feel the benefits of using technology in online learning (Vitoria et al., 2018). Meanwhile, a study that measured parents' perceptions of online learning in Abu Dhabi schools showed that online learning can improve the quality of student learning through the availability of diverse access to learning materials, without being limited in time or physical. In addition, the perceived benefit is that students do not need to come to school or campus because of the distance factor (Abdallah, 2018).

In addition to providing benefits, online learning is also considered detrimental to children in gaining knowledge. The Lubis and Lubis, (2020) study measured parents' perceptions of online learning during the COVID-19 pandemic. The results of their study showed that overall, parents were not satisfied with the implementation of E-Learning. Due to poor ICT infrastructure in the form of the internet, technological devices, power grids, and lack of technological skills are obstacles for their children to participate in online learning. They prefer traditional learning over online learning (Lubis & Lubis, 2020).

Based on this background, research is needed that can measure the perception of early childhood teachers on digital competence (use of technological devices and the ability to access the internet) of online learning they do whether the learning is effective and able to measure children's competence or still needs to be improved to be even better. In addition, the perception of parents representing early childhood as users of teacher services also needs to be measured so that the assessment becomes objective.

## 2 THEORETICAL STUDY

### 2.1 *Professional Development*

The ability to be "literate" and use technology is one of the learning abilities of the 21st century, namely *technology literacy*. This ability is also stated in Law Number 14 of 2005 concerning teachers and lecturers, where the Law explains that in the learning process, an educator needs to be proficient in using information and communication technology to communicate and develop themselves. The ability to use this technology is one of the characteristics of teacher professionalism. In addition, the importance of teacher professionalism is related to the role of teachers in influencing schools, improving the quality of teaching, and influencing various aspects of students' lives, especially in learning outcomes (Wasserman & Migdal, 2019).

## 2.2 Digital Learning

Understanding *Digital Learning*, according to *the American Society of Training and Education* (ASTD), is the process by which learners use digital media in learning (Lin et al., 2017). Media *digital* These include the internet, networks, computers, *satellite broadcasting*, audio and video recordings, interactive TV, and *compact disk* (CD). Such uses include network-based learning (*Network-Based Learning*), computer-based learning (*computer-based learning*), virtual classrooms, and *Digital Cooperation*.

Furthermore, research conducted by Lin, Chen, and Liu on 116 students spread across four classes showed that digital learning positively impacted learning motivation and outcomes compared to traditional learning. In addition, learning motivation shows a significant positive impact on learning outcomes. The results of this study are expected to be the basis for combining traditional learning with digital learning, especially in terms of developing learning strategies to support learning effectiveness (Lin et al., 2017).

## 2.3 Online/Digital Learning for ECCE Teachers

In the distance education system, using and mastering information and communication technology (ICT) in the learning process is necessary. (Simonson et al., 2019) Explain some of the success factors of independent learners in distance education, namely the behavior of independent learners (*attitudes to distance education*), initial experience to learn through SPTJJ (*distance Learning Experiences*), readiness for self-study (*readiness for Learning at a distance*), student learning style (*Learning Styles*), and learner responsibility and integrity (*learner's responsibilities*). Mastery of ICT teacher candidates (*Pre-Service Training*) and in-service teachers (*in-service training*) can be seen through the online learning process (*online/digital learning*) teachers when they teach using technology in their learning at school, at the time of being students or when they attend ICT courses or training.

## 2.4 Digital Competence

Digital Competence (*Digital Competence*) is one of the competencies teachers must master based on the Law, namely ICT competence. Digital competencies based on the DIGCOM framework (*European Commission*) cover five areas: information, communication, content creation, security, and problem-solving. The field of information includes identifying, finding, retrieving, storing, organizing, and analyzing digital information to assess its relevance and purpose. Communication includes communicating in digital environments, sharing resources online, connecting with others and collaborating through digital tools, interacting with, and participating in communities and networks, and cross-cultural awareness. In terms of content creation, it includes the ability to create and edit new content (from word processing to images and videos); integrate and re-decipher previous knowledge and content; produce creative expression, media output, and programming; handle and apply intellectual property rights and licenses from the field of security, including personal protection, data protection, digital identity protection, security measures, safe and continuous use. Problem-solving skills include the

ability to identify digital needs and resources, make informed decisions about digital tools that are most appropriate for their goals or needs, solve conceptual problems through digital means, creatively use technology, solve technical problems, update themselves and other competencies (Ferrari et al., 2013).

On the other hand, Krumsvik divides digital competence into five levels: adoption, adaptation, appropriation, and innovation, where the lowest level is adoption and the highest level is teachers able to innovate (Krumsvik, 2014). Digital competence according to Krumsvik, can be seen in Figure 1. On the other hand, Ala-Mutka issued a digital competency concept model, divided into instrumental skills and knowledge, advanced skills and knowledge, and attitudes (Ala-Mutka, 2011), wherein each category has capabilities, as seen in Figure 2.

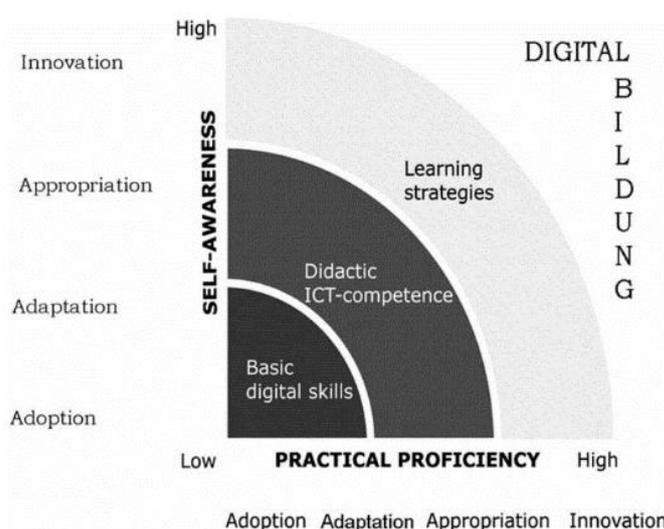


Figure 1. Teacher educator's digital competence (Krumsvik, 2014)

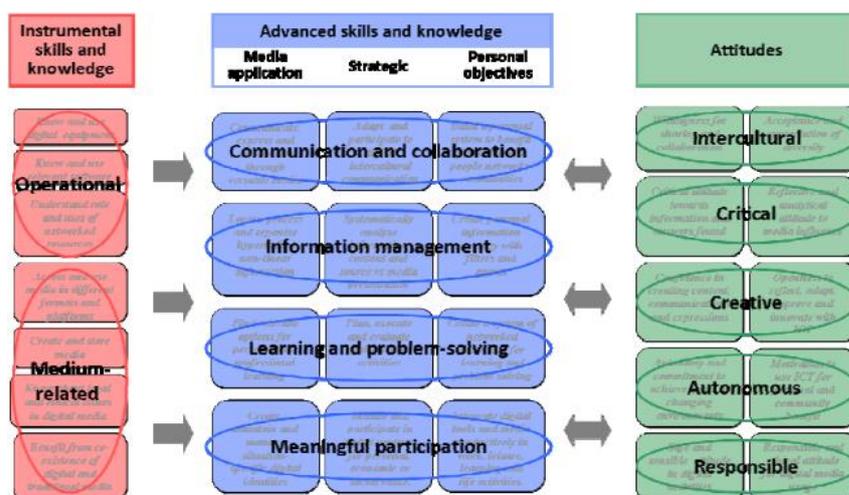


Figure 2. Digital Competence Conceptual Model (Ala-Mutka, 2011)

The way to determine whether teachers have digital competence is to measure digital competence using tools or instruments that various experts have developed. One of the

instruments commonly used to measure digital competence is the DigCompEdu framework. This instrument allows teachers (1) to learn more about the DigCompEdu framework, which is about what it means to be a digitally competent educator, (2) to gain a first understanding of their strengths, and (3) to get ideas on how to improve their competencies (Ghomi & Redecker, 2019). Other frameworks or frameworks that can be used to measure digital competence are NETS-T, Teachers ICT Competence Standards, DigiLit Leicester, DIGCOMP-EDU, and the standard Framework for TDC. Digital teaching competency assessments are conducted according to the DigCompEdu framework, which is most valued by experts (Jiménez-Hernández et al., 2020).

Teachers who have digital competence are not only able to use digital technology but also have knowledge and awareness of ethical issues related to the practice and a broader understanding of technology and media in society (McGarr & McDonagh, 2020). In teacher education, digital competence becomes a complex experience for teachers because teachers are not only expected to be digitally competent but must also be able to design educational experiences to develop their students' digital competencies (Røkenes & Krumsvik, 2016).

## 2.5 *Use of Technology in Learning*

McKnight said that the successful use of digital media in the classroom is not determined by technology but by how it enables teaching and learning (McKnight et al., 2016). Furthermore, regarding teachers' professional abilities, the program should assess teachers' motivation to participate in online learning. It can build learning experiences that can develop based on what teachers believe and use the concepts/themes that are most important to them (Hobbs & Tuzel, 2017).

## 3 METHOD

The method to be used in this study is quantitative research with a survey method in the form of a questionnaire. The design of this study is *cross-sectional* because researchers only retrieve data at specific times (Cresswell, 2013; Cresswell & Cresswell, 2018; Creswell, 2016). This study focused on ECCE teachers and parents with early childhood, especially kindergarten and elementary school ages 1 and 2 (ages 4 to 8).

### 3.1 *Place and Time of Research*

This research was conducted using online surveys throughout Indonesia for three weeks, starting from preparing research proposals, making instruments, distributing questionnaires, analyzing data, and making research reports.

### 3.2 *Population and Research Sample*

This study used the technique of *non-probabilistic Internet Sampling* because the sample was chosen only to illustrate the perceptions of teachers and parents about the effectiveness of the implementation of online learning (Best & Harrison, 2009). The

population in this study is all teachers and parents of early childhood spread across Indonesia. In contrast, the research sample was kindergarten teachers, grade 1 and 2 elementary school teachers, and parents with children aged 2-8 years throughout Indonesia.

### 3.3 *Research Procedure*

The collection of research data was carried out in the following stages. Make survey instruments (questionnaires) following research questions and objectives; use the Microsoft 365 platform and create a questionnaire link. Disseminating questionnaire links to teachers and parents of early childhood through WhatsApp Group (WAG) and social media Twitter and Telegram. Derive the filled questionnaire result data in Excel format. Processing research data Analyze research data.

### 3.4 *Data Collection and Analysis Techniques*

The research data was collected through questionnaires created with the Microsoft 365 platform. The teacher questionnaire contained questions about their ability to use technological devices and access the internet and their perceptions when conducting *online learning*. In comparison, the questionnaire for parents contains questions about parents' ability to use gadgets (technological devices) and access the internet and about parents' perceptions of online learning followed by their children. The two instruments were made separate links and then distributed through WhatsApp Group (WAG), social media Twitter, and Telegram to all teachers and parents of early childhood. The teacher questionnaire can be accessed via the <https://sl.ut.ac.id/SurveyGuru> link or by scanning the following QR code (see in figure 3 and 4).



Figure 3. The parent questionnaire can be accessed via the <https://sl.ut.ac.id/SurveyOrtu> link or by scanning the following QR code.



Figure 4. The questionnaires participants have filled out are then tested for reliability using Cronbach Alpha.

## 4 RESULT AND DISCUSSION

### 4.1 Result

Based on the results of the questionnaire distribution, the number of teacher respondents who filled out the questionnaire was 45, consisting of 4 men and 41 female teachers. The number of parents who filled out the questionnaire was 51, consisting of 2 men and 49 women (Figure 5). The age distribution of teacher respondents was two people aged 23-25 years, three people aged 26-30 years, ten people aged 31-35 years, ten people aged 36-40 years, and 40 people aged over 40 years. The age distribution of parent respondents was six people aged 26-30, 15 people aged 31-35, 17 people aged 36-40, and 13 people aged over 40 (Figure 6).

The domicile area of the teacher respondents was one person in North Sumatra, one person living in South Sumatra, one person in Riau, five people living in Banten, 13 people in DKI Jakarta, 11 people in West Java, one person in Central Java, one person in East Java, eight people in West Nusa Tenggara, one person in East Kalimantan, one person in South Sulawesi, and one person in Papua. At the same time, the area where the parent respondents lived was one person in Riau Islands, six people in Banten Province, 24 people in DKI Jakarta, and 20 people in West Java Province. The data showed that the distribution of questionnaires was wider among teacher respondents than parent respondents.

2. Your gender.....

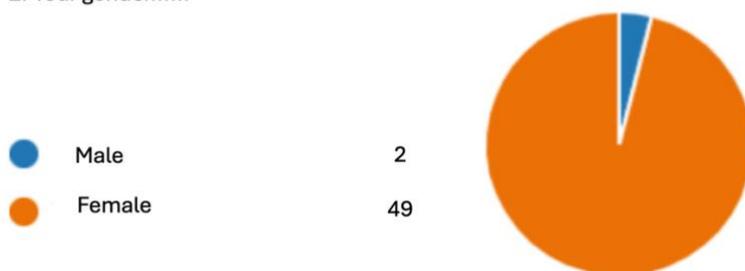


Figure 5. Gender of Parent Respondents

The educational backgrounds of teacher respondents were eight people with high school education / equivalent, 35 Bachelor graduates, and 2 Master graduates. The educational backgrounds of the parent respondents were 14 high school / equivalent, 33 Bachelor graduates, and 4 Master graduates. The distribution of work of teacher respondents was 25 kindergarten teachers, nine elementary school teachers, six caregivers in TPA, three teachers in family planning, and three principals in ECCE institutions. The work of parents is 27 people who work as housewives, five civil servants, 15 private employees, three self-employed people, and three people answering other types of work. The age distribution of teacher respondents' students was 15 children aged 5-6 years, 13 people aged 4-5 years, six people aged 7-8 years, five people aged 3-4 years, three people aged 6-7 years, two people aged 2-3 years, and one person aged 1-2 years. The children of parent respondents were divided into two people aged 4-5 years, two people aged 5-6 years, 18 people aged 6-7 years, and 29 people aged 7-8 years.

3. Your current age...

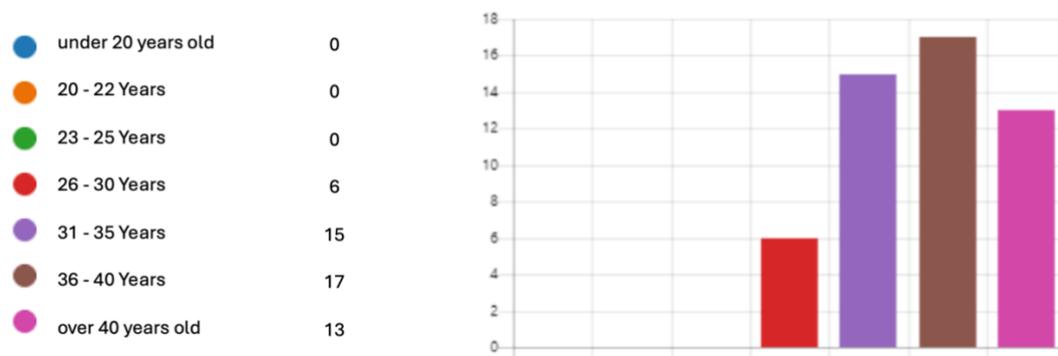


Figure 6. Age of Parent Respondents

Figure 7 shows that most children participate in online learning (66.7%), through online and offline by 29.4%, and through teacher visits to home by 3.9%. While 20 teacher respondents taught online, 17 teachers taught *blended*, 6 people came to students in turns, and 2 teachers taught children at school.

11. The learning mode that my child uses during the pandemic.....

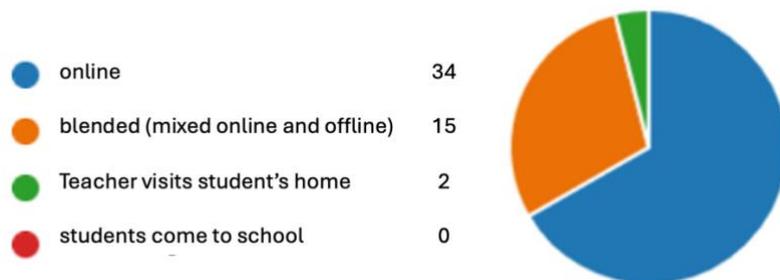


Figure 7. The Mode of Learning That the Child Follows

Figure 8 shows that teachers gave assignments to 20 students (39.2%) via WhatsApp Group (WAG), 12 people through Google Classroom (23.5%), zoom meetings, and parents took directly to school each to 9 students (17.6%). The remaining teachers delivered assignments home to 1 student (2.1%). Teacher respondents gave assignments through WAG to as many as 16 people, zoom meetings to as many as 13 people, parents took school to 11 people, three teachers delivered assignments to homes, and two teachers gave assignments through Google Classroom.

12. The teacher gives assignments to my child through...

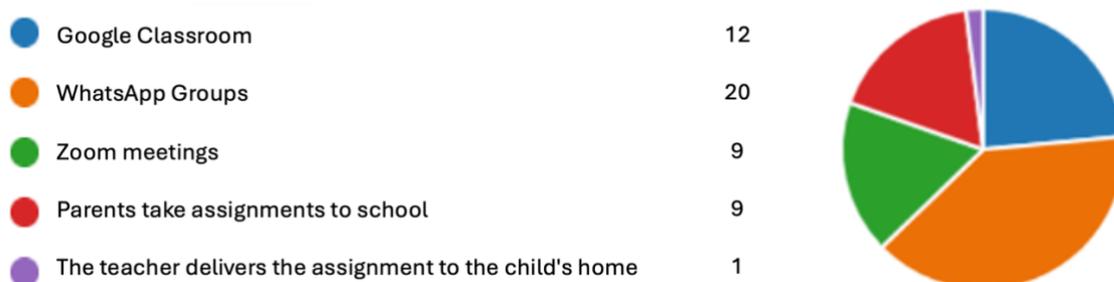


Figure 8. Media Used by Teachers to Assign Tasks to Children

Figure 9 shows children's screen time each day, with the most respondents (19 people) stating that children's screen time is 1-2 hours, 18 people answer 3-4 hours, 10 people answer more than 5 hours, and only four people answer less than 1 hour. The daily teacher's screen time is divided into 15 people for 1-2 hours, 11 people for less than 1 hour, 10 people for more than 5 hours, and nine people with a duration of 3-4 hours. Regarding parents' ability to use cell phones, 47 answered that they usually use them, three said they sometimes use smartphones, and one felt no need to use them. Regarding teachers' ability to use cell phones, as many as 40 said they usually use smartphones. Four people said they sometimes use smartphones, and one person does not have a smartphone and may one day buy it.

13. The duration of my child's gadget use/screen time in a day is...

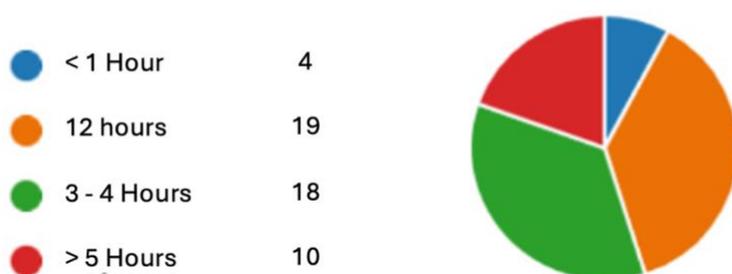


Figure 9. Children's *Screen Time*

Regarding teachers' opinions about the use of technology in work or study, 39 teachers think that technology can encourage the achievement of task completion targets on time, and five people say that the use of technology is not related to task completion. One person said that sometimes technology hinders the completion of tasks on time. A total of 27 teachers said that using technology always helps achieve priority scales. Sixteen people answered that technology sometimes helps in setting priority scales. Two people said that using technology is separate from setting priority scales. Teachers' perceptions of online teaching and parents' perceptions of online learning followed by their children can be seen in Table 1.

Table 1. Parents' and teachers' responses to online learning that children participate in

Question	Parental response (N=51)					Teacher response (N=45)				
	STS	TS	R	S	SS	STS	TS	R	S	SS
Online learning is more accessible than face-to-face learning in the classroom	12	18	13	3	1	5	21	9	6	0
Children experience problems when participating in online learning	6	9	15	9	8	4	6	8	21	2
Children pay attention to the teacher during learning	1	9	17	19	1	1	4	21	10	5
Children understand the explanation of material online	2	8	15	20	2	1	3	23	12	2
Children have difficulty accessing online learning	6	16	13	8	4	5	9	10	14	3

Question	Parental response (N=51)					Teacher response (N=45)				
	STS	TS	R	S	SS	STS	TS	R	S	SS
Online learning can measure children's competencies according to learning objectives	10	15	14	6	2	6	11	19	5	0
Teachers carry out online learning well	4	6	17	17	3	3	6	16	16	0
Children are more comfortable learning online / teachers are more comfortable teaching online	9	17	15	2	4	10	21	9	1	0
Face-to-face learning is more effective than online learning	2	0	4	14	27	0	0	2	8	31
Online learning is more beneficial	11	12	20	3	1	6	9	21	5	0
Online learning is more cost-effective	10	14	9	6	8	8	13	11	7	2
Online learning is more time-efficient	6	12	13	9	7	8	14	7	10	2

#### 4.2 Discussion

Regarding ownership of a laptop to help children participate in online learning, there were 33 parents who had a laptop, eight parents answered that the child used the laptop interchangeably with other family members, and ten parents did not have a laptop for their children to use during online learning. The answer from teacher respondents regarding laptop ownership was that 34 people had laptops, six teachers took turns using it with other family members, and five people said they did not have laptops. Limited facilities, such as alternating use of devices combined with difficulty in network access or lack of funds to meet internet quotas, according to parents' perceptions, this has quite an impact on children's learning outcomes. Due to these inhibiting factors, parents are pessimistic about online learning, especially for young children, they are worried that aspects of their child's development will be underdeveloped. In line with scientific writing from Abdallah (2018) users show interest in using a system or technology, when they believe in the ease and effectiveness of learning using IT.

In terms of operational online learning applications, 37 parents answered that their computers were equipped with applications, nine parents had never used operational applications on their computers, three parents felt there was no need to use operational applications, and two parents asked other people for help when they wanted to use the application. operational on their computers. In the teacher respondents' answers, 33 people stated that they had operational applications on their computers, seven people had never used operational applications on a computer, and five people asked their family for help when they wanted to use operational applications. In line with previous research, the following teaching problems arise, from various things including challenges in

communicating material to students, limited student internet access, economically disadvantaged student families; and lack of parental support (Lestiyawati, 2020).

Regarding the use of HP to access information, 42 parents said they were able to use HP to access information, seven parents said they could sometimes access information, and two parents could not use HP to access information. A total of 35 teacher respondents stated that they could use cell phones to access information, and nine people stated that sometimes they could access information using cell phones. One person was not able to use cell phones to access information. Meanwhile, in terms of the ability to access the internet, 29 parents can access the internet, 21 parents can access the internet but sometimes have problems, and one parent needs help accessing the internet correctly at the location where they live. A total of 26 teachers said they could access the internet but sometimes had problems; 18 people accessed the internet without problems, and one could not because of the area where they lived. In Indonesia, using a cellphone has become easier than using a laptop (which is still considered an expensive object). This is also an obstacle in online learning in Indonesia. However, there has been a significant surge in the use of computers and the Internet for educational reasons (Cole et al., 2017; Kontos, 2015). As a result, online learning has become more feasible (Anderson & Dron, 2011). Many students can obtain high-quality education in various disciplines through online learning. The main characteristics of online learning are the use of technological media, physical separation between teachers and students, and two-way communication. Online learning provides a different approach for a diverse group of learners with specialized training and unique demands (Tudor et al., 2015).

The difference between the two questionnaires is that teacher respondents get additional questions about the ability to use technological devices to support daily work. The answer of teacher respondents to the ability to archive documents (files) was that 30 teachers archived their documents on a flash drive, 12 people in the cloud, and three said they sometimes archive documents because they always print the document. A total of 32 teachers are used to using email in communicating, 11 teachers are not used to using email to communicate, and two people have never communicated via email. 25% of teachers use operational applications (e.g., MS Word) to create and fulfill tasks, 15 say they use applications frequently but sometimes handwriting when doing assignments, and five people use handwriting more often than operational applications.

The table one shows that parents and teachers disagree when asked if online learning is more accessible than face-to-face learning in the classroom. During online learning, children experience obstacles even though parents say that children pay attention to teachers. On the other hand, the teacher answered undecided whether the child paid attention and could understand the teacher's explanation when learning online. Both parents and teachers feel that online learning is going well, but they agree that it cannot measure children's competencies according to learning objectives. Both children and teachers are uncomfortable with online learning. Parents and teachers feel that face-to-face learning is more effective than online learning, takes more time, and costs less

monthly. They also do not feel the benefits of online learning over face-to-face learning. It is following research conducted by (Lubis & Lubis, 2020).

## 5 CONCLUSION

Based on the results of the data analysis, this study concludes that both parents and teachers feel that face-to-face learning is more effective than online learning. This condition is supported by data that both parents and teachers feel obstacles and doubt that online learning can measure children's competence. A limitation of this study is that although the spread of internet links can easily accommodate non-probabilistic sampling methods, the reach of the internet and the accessibility of its users limit the circumstances in which probabilistic survey methods can be used. In the case of internet samples, it usually involves adjusting online results to match results obtained from more representative sampling techniques such as those generated by collecting data through random phone calls so that the suggestion for further research is to ensure the condition of the internet network in the area to be used as a population and research sample so that the needs of research data can be met.

## 6 REFERENCES

- Abbas, H. (2015). *Straightening the Direction of Education*. PT PP Mardi Mulyo.
- Abbas, H. (2020). *Contemporary Issues on Indonesian Education: Expedient Truths*. PT PP Mardi Mulyo.
- Abdallah, A. K. (2018). Parents Perception of E-Learning in Abu Dhabi Schools in United Arab Emirates. *International Journal of Advances in Social Sciences*, 4(10). <http://ijasos.ocerintjournals.org/en/download/article-file/458240>
- Advocates, E. (2015). *Every Student Succeeds Act: Comparison of the No Child Left Behind Act to the Every Student Succeeds Act*. [www.acsd.org](http://www.acsd.org)
- Ala-Mutka, K. (2011). Mapping digital competence: towards a conceptual understanding. *Institute for Prospective Technological Studies*.
- Alhumaid, K., Ali, S., Waheed, A., Zahid, E., & Habes, M. (2020). COVID-19 & Elearning: Perceptions & Attitudes Of Teachers Towards E-Learning Acceptance in The Developing Countries. *Multicultural Education*, 6(2). <https://doi.org/10.5281/zenodo.4060121>
- Alkaabi, S. A. R., Alkaabi, W., & Vyver, G. (2017). Researching Student Motivation. *Contemporary Issues in Education Research*, 10(3). <https://clutejournals.com/index.php/CIER/article/view/9985/10086>
- Anderson, T., & Dron, J. (2011). Three generations of distance education pedagogy. *The International Review of Research in open and Distributed Learning*, 12(3).
- Aparicio, M., Bacao, F., & Oliveira, T. (2017). Grit in the path to e-learning success. *Computers in Human Behavior*, 66, 388–399.

<https://doi.org/10.1016/J.CHB.2016.10.009>

- Best, S. J., & Harrison, C. H. (2009). Internet Survey Methods. In L. Bickman & D. J. Rog (Eds.), *The SAGE Handbook of Applied Social Research Methods* (2nd ed.). SAGE Publications, Inc. [https://books.google.co.id/books?hl=id&lr=&id=m4\\_MAwAAQBAJ&oi=fnd&pg=PA375&dq=fowler+2009+survey&ots=ZVUJUreXyq&sig=ULNAWcDriqjKfOWg9FasuNS39ns&redir\\_esc=y#v=onepage&q&f=false](https://books.google.co.id/books?hl=id&lr=&id=m4_MAwAAQBAJ&oi=fnd&pg=PA375&dq=fowler+2009+survey&ots=ZVUJUreXyq&sig=ULNAWcDriqjKfOWg9FasuNS39ns&redir_esc=y#v=onepage&q&f=false)
- Billingham, K. A., & Billingham, K. A. (2019). Early Childhood Development. In *Developmental Psychology for the Health Care Professions*. <https://doi.org/10.4324/9780429045141-3>
- Cheok, M. L., Wong, S. L., Ayub, A. F., & Mahmud, R. (2017). Teachers' Perceptions of E-Learning in Malaysian Secondary Schools. *Malaysian Online Journal of Educational Technology*, 5(2). [www.mojet.net](http://www.mojet.net)
- Cole, A. W., Anderson, C., Bunton, T., Cherney, M. R., Cronin Fisher, V., Draeger, Jr., R., Featherston, M., Motel, L., Nicolini, K. M., Peck, B., & Allen, M. (2017). Student Predisposition to Instructor Feedback and Perceptions of Teaching Presence Predict Motivation Toward Online Courses. *Online Learning*, 21(4). <https://doi.org/10.24059/olj.v21i4.966>
- Cresswell, J. (2013). Qualitative, quantitative, and mixed methods approaches. In *Research Design* (Fifth). SAGE. <https://edge.sagepub.com/cresswellrd5e/student-resources-0>
- Cresswell, J. W., & Cresswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (Fifth). SAGE Publications, Inc.
- Creswell, J. W. (2016). *Research Design: Qualitative, Quantitative, and Mixed Method Approaches* (fourth). Student Library.
- Crompton, H., Burke, D., Gregory, K. H., & Gräbe, C. (2016). The Use of Mobile Learning in Science: A Systematic Review. *Journal of Science Education and Technology 2016* 25:2, 25(2), 149–160. <https://doi.org/10.1007/S10956-015-9597-X>
- Daniels, M. M., Sarte, E., & Cruz, J. Dela. (2019). Students' perception of e-learning: a basis for the development of e-learning framework in higher education institutions Recent citations. *The International Conference on Information Technology and Digital Applications*. <https://doi.org/10.1088/1757-899X/482/1/012008>
- Ferrari, A., Punie, Y., & Bre, B. N. (2013). *DIGCOMP: A Framework for Developing and Understanding Digital Competence in Europe*. <https://doi.org/10.2788/52966>
- Ghomi, M., & Redecker, C. (2019). Digital competence of educators (DigCompedu): Development and evaluation of a self-assessment instrument for teachers' digital competence. *CSEDU 2019 - Proceedings of the 11th International Conference on Computer Supported Education*, 1(Csedu), 541–548.

<https://doi.org/10.5220/0007679005410548>

- Hobbs, R., & Tuzel, S. (2017). Teacher motivations for digital and media literacy: An examination of Turkish educators. *British Journal of Educational Technology*. <https://doi.org/10.1111/bjet.12326>
- Jiménez-Hernández, D., González-Calatayud, V., Torres-Soto, A., Mayoral, A. M., & Morales, J. (2020). Digital competence of future secondary school teachers: Differences according to gender, age, and branch of knowledge. *Sustainability (Switzerland)*, 12(22), 1–16. <https://doi.org/10.3390/su12229473>
- Kontos, G. (2015). Practical teaching aids for online classes. *Journal of Educational Technology Systems*, 44(1), 36-52
- Krumsvik, R. J. (2014). Teacher educators' digital competence. *Scandinavian Journal of Educational Research*, 58(3), 269–280. <https://doi.org/10.1080/00313831.2012.726273>
- Lestiyawati, R. (2020). The Strategies and Problems Faced by Indonesian Teachers in Conducting E-learning During COVID-19 Outbreak. *CLLiENT (Culture et al.)*, 2(1). <https://ojs.unsiq.ac.id/index.php/cclient/article/view/1271>
- Lin, M.-H., Chen, H., & Liu, K. S. (2017). A study of the effects of digital learning on learning motivation and learning outcome. *Eurasian Journal of Mathematics, Science and Technology Education*, 13(7), 3553–3564.
- Lubis, A. H., & Lubis, Z. (2020). Parent's Perceptions on E-Learning During Covid-19 Pandemic in Indonesia. *Journal of Critical Reviews*, 7(18).
- McGarr, O., & McDonagh, A. (2020). Exploring the digital competence of pre-service teachers on entry onto an initial teacher education program in Ireland. *Irish Educational Studies*, 40(1), 115–128. <https://doi.org/10.1080/03323315.2020.1800501>
- McKnight, K., O'Malley, K., Ruzic, R., Horsley, M., Franey, J. J., & Bassett, K. (2016). Teaching in a digital age: How educators use technology to improve student learning. *Journal of Research on Technology in Education*. <https://doi.org/10.1080/15391523.2016.1175856>
- Røkenes, F. M., & Krumsvik, R. J. (2016). Prepared to teach ESL with ICT? A study of digital competence in Norwegian teacher education. *Computers and Education*, 97, 1–20. <https://doi.org/10.1016/j.compedu.2016.02.014>
- Simonson, M., Zvacek, S. M., & Smaldino, S. (2019). *Teaching and Learning at a Distance: Foundations of Distance Education 7th Edition*. IAP.
- Tudor, S., Stan, M., & Paisi-Lazarescu, M. (2015). Integration of the e-Learning in teaching / learning courses at preschool and primary pedagogical teacher. *eLearning & Software for Education*, 2, 340-345
- Vitoria, L., Mislinawati, M., & Nurmasiyah, N. (2018). Students' perceptions on the

implementation of e-learning: Helpful or unhelpful? *The 6th South East Asia Design Research International Conference (6th SEA-DR IC)*.<https://doi.org/10.1088/1742-6596/1088/1/012058>

Wasserman, E., & Migdal, R. (2019). Professional development: Teachers' attitudes in online and traditional training courses. *Online Learning Journal*.  
<https://doi.org/10.24059/olj.v23i1.1299>