

# Learning loss during the pandemic: Views of Indonesian teachers and parents

Ika Febrian Kristiana <sup>a,1,\*</sup>, Costrie Ganes Widayanti <sup>a,2</sup>, Prasetyo Budi Widodo <sup>a,3</sup>, Yeniar Indriana a,4

<sup>a</sup> Faculty of Psychology, Diponegoro University, Jl. Prof. Mr. Sunario, Tembalang, Semarang 50275, Indonesia <sup>1</sup> ika.f.kristiana@gmail.com \*; <sup>2</sup> costriewidayanti@live.undip.ac.id; <sup>3</sup> pbundip@yahoo.com; <sup>4</sup> ptyenifarhani60@gmail.com

\* corresponding author

Societv

#### ARTICLE INFO

# ABSTRACT

Article history Received 2022-07-26

Revised 2022-10-13 Accepted 2022-10-25 Published 2022-12-10

Keywords

Learning loss Online learning Pandemic Teacher Parent

The pandemic situation has dramatically caused a shift from face-toface learning to online-based distance learning. Learning loss has become an unanticipated impact and threatens almost all students in the world, including Indonesia. This qualitative study was aimed to explore the understanding of teachers and parents in Indonesia about learning loss. A total of 16 participants consisting of teachers and parents (M.age = 44.5; Female = 81.25%; Male = 18.75%) were involved in focus group discussions as the data collection process. This is narative research using thematic analysis from Braun & Clarke (2006) was used in data analysis. There were 6 final themes about learning loss, namely: the determinants, the forms, the negative impacts, the strategies to minimize, the parties who are responsible for overcoming it, and the expectations of teachers and parents. The unique findings of this study establishing the possibilities for future research include decreased motivation and positive characters as a new form of learning loss, teacher capacity in conducting online learning, technological literacy for parents, and learning loss for students with special needs as well as network constraints and unnecessary involvement from parents (finishing student assignments) as parts of the causes of learning loss. It is necessary to have a strategy in overcoming learning loss in a collaborative effort from various parties responsible for the education system in Indonesia.

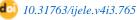


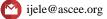
This is an open access article under the CC-BY-SA license.



# 1. Introduction

The World Health Organization (WHO), in March 2020, has officially declared Covid-19 outbreak a global pandemic [1] The spread of the Covid-19 has had profound effects on the on all aspects of life including education with the temporary closure of educational institutions. Affecting more than 70% of the world's student population, the closure of educational institutions has forced those institutions to look for alternatives to maintain the teaching learning process [2] In response to school closures, UNESCO has recommended the use of online applications and learning platforms that allow universities and lecturers to communicate with students as well as monitoring student educational progress [3], [4] Several applications and online learning platforms are used in schools and universities, like Google Classroom, Zoom, Microsoft Teams, Edmodo, and WhatsApp. Distance learning has actually been implemented for a long time, but in the last few decades, the method has shown important developments along with the emergence and development of the internet [5] Educational institutions around the world are competing to apply technology in learning, but those





institutions have not fully implementing distance learning method in the educational process. The pandemic situation has dramatically made a shift from face-to-face learning to distance learning. These conditions create challenges and concerns for students and teachers, including: concerns about potential learning loss, sudden loss of socialization and interaction [6], poor internet connections, and choosing the most appropriate online media.

Only some students are able to enjoy the benefits and are engaged in distance learning process. Others are experiencing challenges, such as limited mastery of technology, inadequate internet access, and cost of internet packages. In addition, students with certain characteristics, for example young students (5-10 years) with disabilities or special needs, will have challenges to be involved in distance learning process, especially if there is no assistance from the family [7]-[10] This condition has reduced students' learning motivation, skills, and competences. School closures and the shift from face-to-face to distance learning during the pandemic has created challenges and concerns about potential learning loss [11]-[13], especially if children, schools, teachers, and parents are not adequately prepared to deal with the situation [14], [15]. Some quantitative studies show that children aged 5 to 10 years from low-income families are categorized in the group of students prone to learning loss due to the absence of parental involvement because parents have to work outside the home [10]. Another research finding shows that during learning from home, students showed little or no progress in learning achievement [9] Learning loss is also directly related to learning achievement and absenteeism to drop out of school [12], [11]. From several existing studies, no study simultaneously explores more deeply how parents and teachers view learning loss at the same time. By knowing their views, an approach or intervention in reducing learning loss will be provided by involving parents and teachers as the main person in charge. Thus, qualitative research with a narrative design that is rooted in an educational context naturally by involving data from multiple sources is needed.

Indonesia is one of the countries that have experienced a shift from traditional learning (offline) to online or distance learning due to the pandemic. Approximately 45 million students in Indonesia or about 3% of the total student population are affected by the global pandemic [11]. The changes in the traditional education system have been harmful to students from underprivileged families and living in rural areas. The topography of Indonesia which consists of islands and mountains has also been a factor that widens the gap in accessing the Internet [16] The pandemic has caused additional barriers to these students to education due to inequality in utilizing the infrastructure. Thus, the phenomenon of learning loss is inevitable by almost all students in Indonesia, yet the understanding of parents and teachers about this phenomenon has not been widely studied. All levels of the education system in Indonesia have never been prepared for distance or online learning. Therefore, learning loss has become an unanticipated consequence and may even be realized too late. The aim of the study was to explore the understanding of teachers and parents in Indonesia about learning loss. Knowing the understanding of teachers and parents about learning loss we can arrange some intervention program by involving them.

The research questions in this study are:

- 1. How teachers and parents perceive learning loss?
- 2. What forms of learning loss have been identified by teachers and parents?
- 3. What are the efforts initiated by teachers and parents in overcoming learning loss in students?

Online learning and classes are increasingly becoming a part of education systems around the world. Online channels have made education convenient and accessible to everyone. Although online and distance courses have been around for a long time, the introduction of online classes compared to traditional face-to-face classes has been considered only in recent years in Indonesia. In Indonesia, the education system with a face-to-face class approach is still the most prominent system used. Familiarity and the ease of using offline methods and inadequate online learning infrastructure have become the main obstacles to the adoption of online education channels. However, the Covid-19 pandemic has brought drastic changes in the education system not only in Indonesia but throughout the world. While technology makes everything accessible and easier, it is also limiting, especially in Indonesia, where many students face challenges in accessing the internet. This in turn causes problems with student attendance and participation in online learning. Student absence (absenteeism) in online learning has been investigated to reduce the academic performance of elementary school students, especially in the field of mathematics [17], [19] and this is one form of student learning loss.

Learning loss is a phenomenon that always accompanies summer. The conditions have been considered "terrible" with two months of learning math lost for most students each summer and two to three months of learning reading lost for low-income students according to the National Summer Learning Association. Educators and parents often convey three concerns about possible negative impacts of summer vacation on student learning. One of the concerns is that children learn best when teaching is continuous. Long summer vacations break the rhythm of teaching, cause forgetfulness, and require a lot of review of material when students return to school in the fall [20]. The Education and Development Forum [18] defines learning loss as a situation where students lose knowledge and skills, either general or specific academic decline, which occurs due to a prolonged gap or discontinuity of the educational process. In addition, learning loss is also defined as a phenomenon that occurs in children from the middle to lower economic class who do not have the ability to use

Distance learning has harmed students from underprivileged families as well as who live in rural areas. Those are students who, in normal conditions, already have challenges to have access to education. Now, during the Covid-19 pandemic, they need to face additional barrier like accessing the technology in limited infrastructure. Learning loss has been reported to be 60% greater among students from parents with low socioeconomic and educational backgrounds. Research findings show that students has little or no progress during learning from home (school closures) where the percentage is greater in countries with less infrastructure or longer school closures [9]. The spreading of Covid-19 has forced the government to close schools and encourage distance learning from home. Various initiatives were carried out to ensure that learning activities continued even in the absence of face-to-face sessions. Technology, more specifically the internet, smartphones, and laptops, are now widely used to support distance learning.

and access gadgets and the internet for learning. The later definition is widely used in other countries.

# 2. Method

# 2.1. Participant and Procedures

This qualitative narrative employed thematic analysis method from [21] which describes its strategy based on an understanding of the various existing qualitative approaches to ensure that the qualitative study is robust. Thematic analysis is a method for identifying, analyzing and reporting themes in collected data. Thematic analysis as a basic method for qualitative analysis is compatible with the essentialist and constructionist perspectives in psychology [22] Qualitative psychologists must be clear about what they do, why, and 'how' the results of the analysis should be reported [23].

Initial	Sex	Age (year)	Educational level background
Sr*	Female	43	1
IN*	Female	45	1
We*	Female	45	1
Su*	Male	50	1
Nt*	Female	46	1
St*	Female	42	1
Ry*	Male	48	1
Sc*	Female	52	1
Wyn***	Male	54	1
TH ***	Female	44	2
De ***	Female	40	1
An***	Female	42	1
Nw***	Female	38	1
R ***	Female	40	1
Ng***	Female	43	2
S***	Female	40	1

 Table 1. Participant Demographic

<sup>a.</sup> \*Denotes teacher (elementary schools or junior high schools);

b. \*\*denotes special teacher; \*\*\*denotes parent; educational level (1=undergraduate; 2=Senior High School)

Ika Febrian Kristiana et.al (Learning loss during the pandemic: Views of Indonesian teachers and parents...)

This study involved 16 participants consisted of 8 teachers and 8 parents. Researchers obtained participants with open recruitment through advertisements disseminated on social media. Those who are willing to become participants then fill out an informed consent as proof of their willingness. The age of the participants ranged from 38-54 years (M=44.5) consisted of 13 females (81.25%) and 3 males (18.75%). Teacher participants were consisted of two teachers of public junior high schools and six teachers of public elementary schools from several cities on Java. Participant demographics are presented in Table 1. Data collection was conducted through online focus group interviews using ZOOM platform on July 5, 2021. Participants were divided into 4 discussion groups, namely two groups of teachers and two groups of parents. Each researcher led the discussion in each group accompanied by an observer. All FGD processes were recorded after obtaining permission from the participants and each discussion lasted from 45 to 60 minutes.

#### 2.1. Instruments

The research team developed an FGD interview protocol by making interview questions derived from research questions. Some of the questions are enlisted below:

- **Part 1**; (a) Opinion on distance learning; (b) Experiences in designing and conducting distance learning (for teachers); (c) Parents' perceptions toward children's learning attitudes during distance learning (for parents).
- Part 2; (a) Have you ever heard about learning loss? If yes, what do you know about learning loss? (teachers and parents); (b) What are the signs of learning loss experienced by students during distance learning? (teachers and parents); (c) Why learning loss occurs? What are the factors causing learning loss? (teachers and parents); (d) Share your experiences in overcoming students' or children's learning loss? Provide the reasons (teachers and parents); (e) Who are responsible for learning loss?; (f) Recommendation to overcome learning loss?

#### 2.3. Data Analysis

Data from interviews were analyzed using thematic analysis. Thematic analysis consists of 6 steps based on [22]: (a) Familiarizing with the data: Transcribing data (if necessary), reading and rereading the data, noting down initial ideas; (b) Generating initial codes: Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code; (c) Searching for themes: Collating codes into potential themes, gathering all data relevant to each potential theme; (d) Reviewing themes: Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis; (e) Defining and naming themes: Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme; (f) Producing the report: The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

# 3. Results and Discussion

The analysis was conducted based on Thematic Analysis [22]. In the first step, familiarizing yourself with your data, the researcher transcribed recorded FGD. The FGD transcript contains clear extraction of verbatim from irrelevant sentences or words. Next, the researcher conducted initial noting to generate the initial code. Initial code is a step to generate a list of initial ideas from the data. This step included production of the initial codes (content or latent semantic features) of data or information that can be meaningfully assessed regarding the phenomenon. Coding is done manually by reading the data and providing coding on the data relevant to the research. The coding process was carried out by creating a codebook using NVivo 12 plus software and a total of 111 codes were obtained. Table 2 presents examples of transcription and initial coding carried out by authors.

Table 3 presents all data that has been coded and compiled in lists (books) code of example lists (books) code compiled by researchers. Step 3, collating codes into potential themes, was started when all data has been coded and arranged in a code list (book), then the obtained codes are sorted or extracted to find themes. Based on the previous step, 37 codes were formed (in the code book), which were then sorted and re-read to find inter-code relevance to obtain potential themes. The use of visual

representations (pictures, tables, or mind maps) was useful in sorting different codes into themes. An example of this initial thematic process is presented in the Table 4.

Data extract	Initial code for
The current learning method (during pandemic situation) is actually surprising. The online learning that I did encounter many problems when I went online using Zoom or Google Meet. Especially because I live in rural area, sometimes the signal is unstable, and so on. There were strategies that we might give to students, for example, ma'am, I often send material using WhatsApp in groups. There are times when some students are given individual guidance. Yes, from time to time I visit students' homes and then give a little guidance and learning to students.	<ol> <li>Obstacles in online learning are geographical conditions and weak signal.</li> <li>The teacher's strategy in overcoming the obstacles of online learning, one of which is by home visits and conducting asynchronous learning.</li> </ol>
Yes, the children are supposed to complete the tasks in the allotted time. Sometimes they are unable to do that. Then after we checked, sometimes they are really ignorant. Sometimes the task is half done by parents. So it's as if learning is really, really, less important. In percentage, 5% of the students in our junior high school are like that. They consider distance learning as a holiday, and their parents even invited them to go out. Well, we found out when we visited the house. So, parents are the key to the solution.	<ol> <li>Decreased willingness to learn is a form of learning loss in students.</li> <li>Students have negative perception of distance learning, considering it as as a vacation.</li> <li>Home visit as an effort to minimize student learning loss.</li> <li>The role of parents is very important during distance learning.</li> </ol>

A total of 16 initiation themes after the process of rereading and finding relevance of the 37 codes were identified in the 2nd step. The initiation themes include: 1) teacher strategies in distance learning, 2) distance learning constraints that cause learning loss, 3) forms of student learning loss, 4) student misperceptions about distance learning, 5) teacher strategy in minimizing learning loss, 6) negative impact of distance learning, 7) negative learning attitude, 8) unnecessary involvement of parents, 9) parent strategy in minimizing learning loss, 10) parental involvement in distance learning, 11) school and government strategy in minimizing learning loss, 12) the negative impact of distance learning on students with special needs, 13) parties responsible for overcoming learning loss, 14) determinants of learning motivation, 15) forms of parental assistance during distance learning, 16) expectations of teachers and parents to overcome learning loss.

Table 3.	Codebook	Using	NVivo
----------	----------	-------	-------

No	Category	Description	Files	References
1.	The media for online learning	Media / digital platforms used in online learning include Zoom, Google Meet, or MS Teams	4	18
2.	Synchronous and asynchronous as methods of distance learning applied by teachers	Teachers implement both synchronous (virtual face-to- face session) and asynchronous (task or assignments are sent online and can downloaded anytime by students) methods	4	12
3.	Geographical condition and difficulties in obtaining stable connection are problems encountered in online learning	Location and internet accessibility can be the main issue in online learning	3	4

Ika Febrian Kristiana et.al (Learning loss during the pandemic: Views of Indonesian teachers and parents...)

No	Category	Description	Files	References
4.	Limited device availability (gadget/ laptops) also limits online learning opportunity	Limited access to cellphones and smart gadgets can also be the main factor which prevent online learning's success	3	3
5.	Parents can also be the issue in online learning	Other factors which can also hinder online learning are parents with no knowledge of the latest technology development, working parents (unable to control or supervise their children during the learning process), stressed parents, parents of children with special needs who stop the home therapy or remedial	2	8

<sup>c. \*</sup> Description = coded sentences; *files* = data source (participants' transcript); *references* = coded statements from transcript

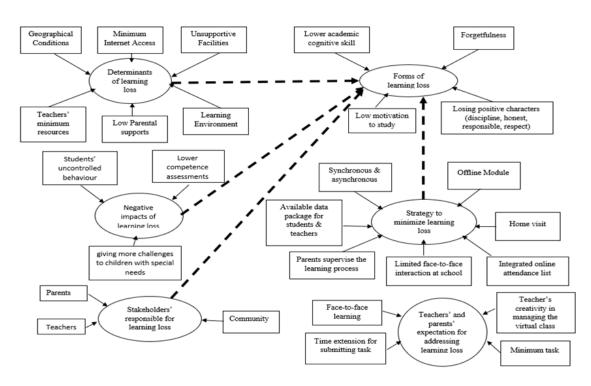
The next step of the analysis is to review the theme by rereading and extracting the initiation themes into a final theme. The extraction process from 17 initiation themes resulted in 6 final themes which are depicted in Fig. 1. Based on the final themes resulted from the analysis, the researchers carried out further synthesis by re-examining the relevance of the 6 themes to answer research questions: 1. How teachers and parents perceive learning loss? 2. What forms of learning loss have been identified by teachers and parents? 3. What are the efforts initiated by teachers and parents in overcoming learning loss in students?

Code Extraction	Initiation Theme
Media in conducting online learning	Teachers' strategy in distance learning
Synchronous and asynchronous learning as forms of	
distance learning applied by teachers	
geographical conditions and weak signals as the	Obstacles in distance learning contribute to
obstacles to online learning	students' learning loss
Gadget/laptop ownership as the constraints of online	
learning	
Obstacles to online learning from parents	
Obstacles to online learning from teachers	
Cognitive decline as a form of learning loss experienced	Forms of learning loss experienced by
by students	students
Non-cognitive decline as a form of learning loss	
experienced by students	

The next step of the analysis is to review the theme by rereading and extracting the initiation themes into a final theme. The extraction process from 17 initiation themes resulted in 6 final themes which are depicted in Fig. 1. Based on the final themes resulted from the analysis, the researchers carried out further synthesis by re-examining the relevance of the 6 themes to answer research questions: 1. How teachers and parents perceive learning loss? 2. What forms of learning loss have been identified by teachers and parents? 3. What are the efforts initiated by teachers and parents in overcoming learning loss in students?

The understanding of teachers and parents about learning loss is represented by the belief that learning loss is a real phenomenon experienced by students. Parents and teachers have compared children's performance in offline and online learning. They assess that online learning causes decreased cognitive abilities in academics, forgetfulness, decreased motivation to learn, as well as loss of positive character (discipline, honesty, responsibility, respect) as a form of learning loss. This findings are in line with the study reported by Kuhfeld et al [23] and Besecker et al [24]. These forms of learning loss, if not corrected immediately, will have negative impacts, including decreasing student competence, increasingly uncontrolled student behavior, and providing increasingly severe challenges in education for students with special needs. As the findings of previous research, the negative impact of learning loss will occur if online learning, especially for younger students and special needs is immediately stopped [7-10].

The decline of academic performance was identified by teachers and parents, for example decreased ability to understand mathematical concepts, science, and language comprehension. This decline is related to forgetting what was learned during face-to-face school (offline) before the pandemic. The Global Study on the Impact of Covid-19 on Children & Families as well as Sharing Good Practices in Education Programs (*Berbagi Praktik Baik Program Pendidikan*) by Save The Children involving 4,568 parents and 2,232 students in Indonesia reported forms of learning loss experienced by students including: less learning compared to during face-to-face learning in class (73%), Eight out of 10 students (79%) indicated another form of learning loss by stating that they could not access adequate learning materials, 1% of students said they did not learn anything as a form of learning loss, the next form of learning loss stated by 45% of students that they had difficulty understanding the homework given by the teacher [11]. Since September 2021, the government through the Ministry of Education and Culture has initiated a national assessment effort to measure the level of learning loss experienced by students and the number of students experiencing it [25, 26].



<sup>d.</sup> Remarks: ovals = theme; squares = sub-theme

Fig. 1. Map of Thematic Analysis

Another interesting finding that complements the answer to the second research question regarding the form of learning loss identified by teachers and parents including: decreased learning motivation and positive character in students. These two forms of learning loss are a major concern for teachers and parents and are interesting findings in this study. According to the teachers, the decline in students' positive characters, among others, dishonesty (e.g. not completing the assignments given by the teacher), undisciplined (e.g. getting up late, being late joining online classes, falling asleep during online classes, and delaying collecting assignments), disrespecting the teacher (e.g. turning off the camera and not paying attention to the teacher). Developing positive characters and inculcating moral values are the main objectives of education in addition to transferring knowledge to students. The teachers believe that character building in students is challenging.

Teachers and parents also reported several things suspected to be the obstacles or referred to by participants as the cause of learning loss during distance learning. The things causing learning loss which are grouped in the determinants of learning loss include geographical conditions, internet availability, adequate facilities, teacher resources, parent resources, and learning environment.

Geographical conditions and internet availability are interrelated. Teachers who live in rural areas reported that the internet network has not covered their area well so that it becomes an obstacle in distance learning. The topography of Indonesia in the form of islands and mountains requires the good infrastructure of internet and cellular telecommunications. However, 4G coverage is mostly concentrated in Java because the providers, which are highly dependent on the market, naturally prioritize urban areas over rural areas with less population [16] This condition makes students in rural areas experience more learning loss than students in cities. The sub-theme of adequate facilities was stated by the teacher which is represented by the lack of gadgets that students have at home. In online learning, gadgets (mobile phones and computers) are must-have facilities. In reality, not all students have adequate gadget facilities (in terms of quality and quantity) at home. For example, each household only has one cell phone which is brought to work by parents so that students are unable to join online learning from. Ry's statement regarding the causes of learning loss is as follows:

Actually, there are many obstacles. Especially, my house is geographically located in rural area. So yes, if children are having online class, they are definitely required to bring cellphones. You can learn through Google Classroom or maybe through Zoom Meetings or Google Meets and so on. Well, because of the geographical location in the countryside, sometimes signal was too weak and so on (Ry, 2021).

The next sub-theme in the theme group of learning loss determinant is teacher resources. Online learning during the pandemic is a completely new learning model for almost all teachers in Indonesia. Before the pandemic, learning in Indonesia was carried out traditionally with face-to-face in the classroom so that online learning modes have never been massively prepared. As a result, the shift in learning model has shocked all elements involved in education, including teachers.

Online learning brings its own difficulties for teachers because they have to learn new technologies. Difficulties in learning and using technology in online learning are mainly faced by older teachers (Sr, 2021)

The situation indicates the need for capacity building for teachers. Several studies have shown that the information, communication, and technology (ICT) competencies of Indonesian teachers are not evenly distributed throughout the region [27] Teachers must adapt quickly to the demands of conducting online distance learning. This must be challenging for teachers due to various reasons, such as the age factor related to the speed of learning new technology and infrastructure-related problems such as geographical conditions, signals, and gadgets. This condition affects how teaches prepare their classroom management for online sessions (planning, implementation, evaluation of learning). Effective online class management certainly makes students more motivated and actively involved in class. This is the reason why teacher resources are a determinant of learning loss. Based on the research, face-to-face or online learning does not provide a significant difference to student satisfaction. Online learning can also be effective if it is designed properly [28].

Parental resources are also identified as a determinant of student learning loss. These resources include a code on parental involvement in providing proper understanding to students that distance learning, or learning from home, is not a holiday because schools are closed during the pandemic.

We, working parents, especially find it difficult to accompany our children to learn from home online. Not to mention if there are more than one child and all of them are still small, so we have to divide our attention and time. Often parents are even stressed when accompanying children to learn online plus a lot of school assignments (Ng, 2021).

Another parental involvement is to assist students in learning, including controlling student learning behavior. Having good technological literacy is also necessary for parents so that parents are able to provide adequate assistance during distance learning. Moreover, it is also important for parents to control their children's internet behavior to avoid negative impacts of the internet. The last determinant identified from the data was the learning environment. The learning environment should be conducive for distance learning. The learning atmosphere is believed to affect students' mood and motivation [29]-[31].

severe learning loss experienced by students with special needs. Learning loss in students with

special needs has not been studied, especially in Indonesia, as follows:

... if the learning loss, my students is definitely experiencing. Even before a pandemic, children with special needs learn slowly, especially with distance learning, we can't meet, no face-to-face sessions causing more and more learning loss (IN, 2021).

In fact, teachers, parents, and the government have started efforts to minimize student learning loss during the pandemic. Some of the efforts made by teachers include synchronous & asynchronous learning strategies, providing offline modules, conducting home visits to deliver direct learning by maintaining health protocols of course. In addition, the efforts made by parents are providing learning assistance to students, including reminding students to show good learning behavior. Next, the government has also made several efforts to minimize learning loss, including providing internet quota for students and teachers nationwide and developing integrated learning web from local governments which includes modules and student attendance records.

The efforts made by teachers, parents, and the government are a form of responsibility from the parties involved in overcoming learning loss during the pandemic in Indonesia. In addition, the community is also expected to take part in helping to overcome this learning loss, for example by conducting group tutoring with limited participants or providing a place for face-to-face learning in limited groups by teachers. Thus, there will be massive and collaborative efforts from all stakeholders in overcoming learning loss that could be a threat to the "lost" of the nation's golden generation.

The last theme identified was the expectations of teachers and parents to overcome learning loss. Teachers and parents have the same hope that face-to-face learning will soon be carried out again. While the expectations that were specifically conveyed by parents were: extending the time for submitting assignments, teacher creativity in managing online learning, and reducing assignments. This parental expectation was expressed in relation to setting roles in assisting learning and the role of parents' work, as mentioned:

Yes...as parents, we try to accompany our children to study during distance learning, but we need to manage our time because we also have to work. Sometimes when the children have a lot of schoolwork and they have to submit them on the same day, the parents are overwhelmed. Moreover, for elementary school students like mine, parents still have to help them to open Google Classroom, for example, then send assignments. Parents have to work from the office, we can't work from home. We come home late in the afternoon and help our children with their homework. Not to mention if there are a lot of tasks, it will make us feel dizzy (De, 2021).

Regarding the expectations of parents about teacher creativity, a participant conveyed that the teacher could make learning more interesting, interactive, and not monotonous so that students did not get bored easily and stay focused in participating in online learning, as stated:

Sometimes, what makes the children end up not focusing on online learning with the teacher (is) because they might get bored just listening to the teacher's explanation, they chose to find some activities, close the camera and (mute the) microphone, sometimes even falling asleep. Maybe the teacher can make learning games, so the students don't get bored. We get the knowledge as well as the fun (Nw, 2021).

Teachers and parents are aware of the potential for learning loss experienced by students during online learning from home. They have also identified forms of learning loss experienced by students and their impact if not addressed immediately. Awareness and understanding of the existence of learning loss and its impact is the reason for the emergence of initiation behavior in reducing learning loss in students. This study complements previous studies by explaining in more detail the form, the determining factor, and the initiation of strategies carried out by parents and teachers in minimizing learning loss in students. However, this narrative research has limitations, including the small number of participants with heterogeneous criteria.

# 4. Conclusion

There are six final themes resulted from the data analysis that represented teachers' and parents' understanding about learning loss. They are determinants of learning loss, forms of learning loss, negative impacts of learning loss, strategies to minimize learning loss, parties who are responsible for overcoming learning loss, and expectations of teachers and parents to overcome learning loss. The unique findings, for example: severe and worrying non-academic forms of learning loss (decreased motivation and positive character), the importance of increasing teacher capacity in conducting online learning, the importance of technological literacy for parents to be able to provide adequate assistance for students during distance learning, learning loss for students with special needs, as well as network constraints and unnecessary involvement of parents (finishing student assignments) contributing to learning loss. These findings call for further research to better understand the long-term effect of learning loss for students. In addition, a formal assessment needs to be carried out to measure the levels of learning loss experienced by students so that it will be the basis in formulating handling strategies. The understanding of teachers and parents about learning loss is illustrated by their ability to identify the forms and determinants of learning loss experienced by students during distance learning. The initiation of efforts that have been made by teachers and parents is illustrated by the strategies carried out in minimizing learning loss, the parties responsible for overcoming learning loss, as well as the theme of expectations of teachers and parents to overcome learning loss. Considering the findings of this study, learning loss is a "danger" that threatens the nation's generation. Therefore, it is necessary to have a strategy in overcoming learning loss in a collaborative effort from various parties responsible for the education system in Indonesia.

# Acknowledgment

The researcher would like to extend the gratitude to the Dean and staffs of Faculty of Psychology, Universitas Diponegoro (UNDIP) for the financial support. In addition, the researcher would also like to thank all participants (teachers and parents) who are very cooperative and care about learning loss.

# **Declarations**

Author contribution	:	IFK (Conceptualization and methodology, data collecting, analysis, and writing manuscript); CGW (writing manuscript and editing); PBW (collecting data); YI (collecting data). All authors have read and agreed to the published version of the manuscript.	
Funding statement	:	The research is funded under research funding and community service Faculty of Psychology, Diponegoro University Project No. 40/UN7.5.11.2/HK/2021	
<b>Conflict of interest</b>	:	The authors declare no conflict of interest.	
Additional information	:	No additional information is available for this paper.	

#### References

- [1] D. Cucinotta and M. Vanelli, "WHO declares COVID-19 a pandemic," *Acta Biomed.*, vol. 91, no. 1, pp. 157–160, 2020, doi: 10.23750/abm.v91i1.9397.
- [2] C. Giovannella, "Effect induced by the covid-19 pandemic on students' perception about technologies and distance learning," in *Smart Innovation, Systems and Technologies*, vol. 197, 2021, pp. 105–116, doi: 10.1007/978-981-15-7383-5\_9.
- [3] J. Crawford *et al.*, "COVID-19: 20 countries' higher education intra-period digital pedagogy responses," *J. Appl. Learn. Teach.*, vol. 3, no. 1, pp. 9–28, 2020, doi: 10.37074/jalt.2020.3.1.7.
- [4] UNESCO, COVID-19 and higher education: Today and tomorrow: Impact analysis, politicy responses and recommendations, 2020, https://unesdoc.unesco.org/ark:/48223/pf0000375693.
- [5] U. M. Akther, "Psychological impact of distance education technologies in students' personal development," *Int. J. Dev. Educ. Psychol. INFAD Rev. Psicol.*, vol. 1, no. 2, pp. 203–212, 2013, Accessed: Jul. 25, 2022, http://dehesa.unex.es/handle/10662/5369.

- [6] H. Dzakiria, R. M. Idrus, and H. Atan, "Interaction in Open Distance Learning: Research Issues in Malaysia," *Malaysian J. Distance Educ.*, vol. 7, no. 2, pp. 63–77, 2005, http://mjde.usm.my/vol7\_2\_2005/mjde7\_2\_5.pdf.
- [7] A. Bacher-Hicks, J. Goodman, and C. Mulhern, "Inequality in household adaptation to schooling shocks: Covid-induced online learning engagement in real time," J. Public Econ., vol. 193, p. 104345, 2021, doi: 10.1016/j.jpubeco.2020.104345.
- [8] R. Chetty, J. N. Friedman, N. Hendren, and M. Stepner, "How Did Covid-19 and Stabilization Policies Affect Spending and Employment? a New Real-Time Economic Tracker Based on Private Sector Data," *Natl. Bur. Econ. Res.*, 2020, doi: 10.3386/w27431.
- [9] P. Engzell, A. Frey, and M. D. Verhagen, "Learning loss due to school closures during the COVID-19 pandemic," in *Proceedings of the National Academy of Sciences of the United States of America*, 2021, vol. 118, no. 17, doi: 10.1073/PNAS.2022376118.
- [10] E. Fournier, S. Scott, and D. E. Scott, "Effective Leadership for Inclusionary Practice: Assessment Considerations for Cognitively Challenged Students," in *Leadership of Assessment, Inclusion, and Learning*, 2016, pp. 199–223, doi: 10.1007/978-3-319-23347-5\_8.
- [11] World Bank, The COVID-19 pandemic: Shocks to education and policy responses, 2020, doi: 10.12968/bjon.2020.29.8.456.
- [12] M. Kuhfeld, J. Soland, B. Tarasawa, A. Johnson, E. Ruzek, and J. Liu, "Projecting the Potential Impact of COVID-19 School Closures on Academic Achievement," *Educ. Res.*, vol. 49, no. 8, pp. 549–565, 2020, doi: 10.3102/0013189X20965918.
- [13] K. L. Turner, M. Hughes, and K. Presland, "Learning Loss, a Potential Challenge for Transition to Undergraduate Study following COVID19 School Disruption," J. Chem. Educ., vol. 97, no. 9, pp. 3346– 3352, 2020, doi: 10.1021/acs.jchemed.0c00705.
- [14] D. A. Christakis, "School Reopening-The Pandemic Issue That Is Not Getting Its Due," JAMA Pediatr., vol. 174, no. 10, 2020, doi: 10.1001/jamapediatrics.2020.2065.
- [15] M. Kaffenberger, "Modelling the long-run learning impact of the Covid-19 learning shock: Actions to (more than) mitigate loss," *Int. J. Educ. Dev.*, vol. 81, p. 102326, 2021, doi: 10.1016/j.ijedudev.2020.102326.
- [16] H. Khatri, "Indonesian users in sparsely-populated rural areas connect to 4G more than 70% of the time," Open Signal, 2019, https://www.opensignal.com/2019/11/12/indonesian-users-in-sparsely-populatedrural-areas-connect-to-4g-more-than-70-of-the-time.
- [17] Aucejo and Romano, 2016; Gottfried, 2014; Gershenson, Jacknowitz & Brannegan, 2017)
- [18] M. A. Gottfried, "Chronic absenteeism and its effects on students' academic and socioemotional outcomes," Journal of Education for Students Placed at Risk (JESPAR), vol. 19, no. 2, pp. 53-75, 2014, doi: 10.1080/10824669.2014.962696.
- [19] S. Gershenson, A. Jacknowitz, and A. Brannegan, "Are student absences worth the worry in US primary schools?," Education Finance and Policy, vol. 12, no. 2, pp. 137-165, 2017, doi: https://doi.org/10.1162/EDFP\_a\_00207.
- [20] H. Cooper, "Summer Learning Loss: The Problem and Some Solutions," ERIC Dig., pp. 1-7, 2003.
- [21] UNESCO, "Dashboards on the Global Monitoring of School Closures Caused by the COVID-19 Pandemic for G20 Countries," UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC), 2021, https://covid19.uis.unesco.org/global-monitoring-school-closurescovid19/g20-dashboard/.
- [22] V. Braun and V. Clarke, "Using thematic analysis in psychology," *Qual. Res. Psychol.*, vol. 3, no. 2, pp. 77–101, 2006, doi: 10.1191/1478088706qp063oa.
- [23] M. Kuhfeld, J. Soland, B. Tarasawa, A. Johnson, E. Ruzek, and J. Liu, "Projecting the potential impact of COVID-19 school closures on academic achievement," *Educational Researcher*, vol. 49, no. 8, pp. 549-565, 2020, doi: 10.3102/0013189X20965918.
- [24] L. Santibanez and C. Guarino, "The Effects of Absenteeism on Cognitive and Social-Emotional Outcomes: Lessons for COVID-19," EdWorkingPaper No. 20-261, Annenberg Institute for School Reform at Brown University, 2020, doi: 10.26300/yj9m-x430.

Ika Febrian Kristiana et.al (Learning loss during the pandemic: Views of Indonesian teachers and parents...)

- [25] K. Roulston, "Data analysis and 'theorizing as ideology," Qual. Res., vol. 1, no. 3, pp. 279–302, 2001, doi: 10.1177/146879410100100302.
- [26] J. Attride-Stirling, "Qualitative Research," Qual. Res., vol. 1, no. 3, pp. 385–405, 2001, doi: 10.1177/146879410100100307.
- [27] I. Kemdikbud, "Asesmen Nasional Perhitungan Learning Loss akibat Pandemi Covid-19," *www.kemendikbud.go.id*, 2021, https://www.kemdikbud.go.id/main/blog/2021/01/asesmen-nasional-modal-perhitungan-learning-loss-akibat-pandemi-covid19.
- [28] A. Widodo and Riandi, "Dual-mode teacher professional development: challenges and re-visioning future TPD in Indonesia," *Teach. Dev.*, vol. 17, no. 3, pp. 380–392, 2013, doi: 10.1080/13664530.2013.813757.
- [29] A. Driscoll, K. Jicha, A. N. Hunt, L. Tichavsky, and G. Thompson, "Can Online Courses Deliver In-class Results?: A Comparison of Student Performance and Satisfaction in an Online versus a Face-to-face Introductory Sociology Course," *Teach. Sociol.*, vol. 40, no. 4, pp. 312–331, 2012, doi: 10.1177/0092055X12446624.
- [30] M. Radovan and D. Makovec, "Relations between students' motivation, and perceptions of the learning environment," *Cent. Educ. Policy Stud. J.*, vol. 5, no. 2, pp. 115–138, 2015, doi: 10.26529/cepsj.145.
- [31] T. Susanti, Damris, Maison, and Tanti, "Learning environment and motivation in junior high school," *Univers. J. Educ. Res.*, vol. 8, no. 5, pp. 2047–2056, 2020, doi: 10.13189/ujer.2020.080542.