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English Literacy Learning Loss during the COVID-19 Pandemic in Indonesia

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Abstract

This study explores the impact of the COVID-19-induced school closures in Indonesia on the decline of secondary school students' learning, particularly in their English literacy. While numerous studies have delved into the repercussions of school closures on literacy skills in European countries, Australia, and the USA, such investigations have been relatively limited in Asia, particularly within the Indonesian context. Employing a qualitative approach for impact assessment, this research gathered data from diverse sources, including online surveys, one-on-one interviews, and focus group discussions. The survey involved 140 English teachers from four Indonesian provinces, including Java, Sumatra, Riau Islands, and Bali provinces. Ten English teachers were selected to participate in the individual online interviews, followed by a focus group discussion with four teachers. Within an inductive approach and thematic analysis framework, data were analysed, and five primary literacy skills emerged from the analysis that show a decline during the period of school closures: having critical thinking while reading, drawing inferences from texts, summarising text content, having good attitudes toward writing, and composing longer paragraphs. These initial findings, although on a small scale, are anticipated to help educators, school administrators, and policymakers in the Indonesian education sector in devising more effective plans for addressing unforeseen challenges in the future, including the development of programs to help students recover from learning loss.

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1. INTRODUCTION

The COVID-19 pandemic, which started at the end of 2019, has caused major disruptions in many fields, including education. School closures in Indonesia, as an effect of physical and social distancing which had taken place from March 2020 until the middle of 2021, had forced teachers and students to suddenly shift to online classrooms and, thus, generated some challenges. One of the problems that often arises is learning loss, which is the loss or decline of students' knowledge and skills caused by a lack of or continuous interruption of education (Engzell et al., 2021), which was faced by many countries, including Indonesia. Learning loss due to the COVID-19 is a real threat, and it occurred in various parts of the world (Fore, 2021; GEM-UNESCO, 2020; United Nations, 2020; World Bank, 2020). The United Nations (UN) through one of its organisations, namely the United Nations Children's Fund or UNICEF in its annual report, showed the data from students in Brazil, Pakistan, India, South Africa, and Mexico who experienced a decline in knowledge and skills in learning mathematics and literacy (World Bank, 2021). The decline in knowledge and skills in these five countries was mostly dominated by junior high school students or those aged between 10-15 years, and those who came from families with middle to lower socioeconomic backgrounds. It is undeniable that if learning loss is left too long, it will greatly affect the socio-economic conditions of the country.

Learning loss, especially in literacy and mathematics, has also been specifically reported in several countries in Europe and America. In the Netherlands, learning loss occurred in mathematics and literacy subjects for students aged 7-10 years and could be observed from the minimal progress shown by students at the beginning of distance learning during the pandemic (Engzell et al., 2021). In Belgium, the decline in the students' ability in mathematics also occurred as a result of learning in the pandemic era (Maldonado & Witte, 2020). However, there has not been much research or other literature that has systematically studied learning loss. In addition, learning loss is a new topic which has "just surfaced" in educational research (Donnelly & Patrinos, 2021, p. 2). However, few studies have investigated learning loss in Indonesian context, especially in the literacy field, even though the Indonesian Ministry of National Education and Culture has indicated the impact of learning during the pandemic on learning loss in the world of education in Indonesia (CNN Indonesia, 2021). Limited literature has presented data that learning loss was reported to occur among people with low socioeconomic status and students in remote areas in Indonesia (Hasudungan et al., 2022). Thus, research on the impact of learning during the COVID-19 period, especially learning loss in the literacy field, is urgent.

Students' literacy skill, especially critical literacy, is an ability expected for all students by the Ministry of Education and Culture (2020). Literacy skill is also considered as an indicator of the educational success of a country because it is one of the assessments in the Program of International Students Assessment (PISA), in which Indonesia has not been able to achieve satisfactory scores. Literacy, as outlined in the PISA test, refers to critical literacy skills in which students are expected to address

everyday cases critically. Thus, one of the key elements to improving the declining knowledge and skills is to improve the skills of teachers in delivering quality learning, especially during the pandemic (World Bank, 2021). Teachers play an important role in every aspect of learning, especially distance learning. However, the teachers' duties during the pandemic are not easy. The report of research results involving 27,046 teachers, administrative staff members, and principals in North Sumatra, West Kalimantan, Central Sulawesi, North Maluku, East Nusa Tenggara, Papua, and DKI Jakarta shows that teachers feel a heavy burden of teaching during the pandemic because teachers are not accustomed to teaching in an online setting (Amri et al., 2021), and this has led to a decline in teaching quality during the pandemic. Therefore, research that focuses on teachers to improve the quality of teaching during the pandemic is urgent. This research is intended to determine what are the learning losses during the pandemic (2020-2021) on students' reading and writing skills in English from the teacher's perspective.

2. LITERATURE REVIEW

This section describes a literature review that is relevant to the research objective. Thoroughly and in detail, the studies that are discussed in this section begin with a study of learning losses that occurred during teaching in the pandemic era, especially the decline in students' literacy abilities.

2.1 Literature on the Learning Loss in Education as the Impact of the COVID-19 Pandemic

Learning loss is often defined as a condition of decreased knowledge and skills of students as a result of a lack of or discontinuation of education (Pier et al., 2021). The condition that causes learning loss and that has just been experienced by many countries around the world is learning loss due to the COVID-19 pandemic. The large scale of social restrictions in almost all countries led to the closure of schools for a long period of time. However, many schools were not ready to implement effective distance learning to substitute for in-person instruction (Newton, 2020). Learning loss that occurs for an extended period of time will have an impact on the deteriorating socio-economic situation of a country (Azevedo et al., 2020; Chetty et al., 2014; Currie & Thomas, 2001; Psacharopoulos & Patrinos, 2018).

Research results on the simulation of the impact of COVID-19 on learning loss conducted by Azevedo et al. (2020) stated that if schools were closed for five months, the decline in students' knowledge could reach 0.6% of the entire school year (Azevedo et al., 2020). For example, as a follow-up simulation, Azevedo et al. (2020) described if 10 students were required to attend education for 11.3 years, then when schools were closed during the pandemic, it was as if students of this level only attended school for about 7.8 years.

The impact of learning loss outside the pandemic on student work and annual income was further simulated and revealed by Currie and Thomas (2001). They said that a 0.20 standard deviation decrease in standardised test scores would result in a 0.86 percent decrease in students' chances of getting a decent job in the future. On the other hand, Chetty et al. (2014) also observed that an increase in the standard deviation

of 0.20 increases annual income by 2.6 percent. In a similar study, [Psacharopoulos and Patrinos \(2018\)](#) said that people who received an education one year longer than others had the potential to earn 8-9 percent greater income in the future than people who received less education. In addition to the above findings, the declining ability of students as a result of the COVID-19 pandemic has been reported in almost all countries, as summarised in the report by [UNESCO \(2020\)](#), [United Nations \(2020\)](#), and [World Bank \(2020\)](#). Specifically, a comprehensive study by [Donnelly and Patrinos \(2021\)](#) shows that learning loss occurred in some European countries, the United States of America, Australia, and Mexico.

2.2 Learning Loss in European Countries

In continental Europe, such as the Netherlands, Belgium, Switzerland, Germany, and Spain, comprehensive studies on the impact of learning during the COVID-19 have been reported. Learning loss in literacy, mathematics, social science, and computer science occurred in early childhood to adult learners at the university level ([Engzell et al., 2021](#); [Gonzalez et al., 2020](#); [Maldonado & Witte, 2020](#); [Schult et al., 2022](#); [Tomasik et al., 2021](#)). In the Netherlands, the decline in students' ability in mathematics was reported to have decreased by a standard deviation of 0.29. In Belgium, the decline in students' abilities felt with a deviation value of 0.19 ([Maldonado & Witte, 2020](#)). In the field of literacy, students in grades 4-7 of elementary schools in the Netherlands experienced a decline in ability with a standard deviation of 0.08-11.00, especially in spelling and reading ([Engzell et al., 2021](#)). In Switzerland, the progress during in-person learning had been twice as good as the progress made when schools were closed for eight weeks in the country as a result of the COVID-19 ([Tomasik et al., 2021](#)). In Germany, [Schult et al. \(2022\)](#) reported a decrease in the reading ability of the 5th graders in literacy by 0.07 standard deviations and 0.03 in mathematics.

2.3 Learning Loss in the United States of America

While in Europe, the literature on learning loss was widely studied among elementary school students, but in some states in the USA, learning loss was observed in four universities majoring in Economics. [Orloy et al. \(2021\)](#) stated that these students showed a decrease in ability and knowledge in the field of economics, with a standard deviation value of 0.19. In addition, in the context of primary schools, particularly grades 3-8 in the USA, research by [Kuhfeld et al. \(2020\)](#) revealed that these primary school students showed a decline of 5-19 % below historic levels in mathematics.

2.4 Learning Loss in Australia

In Australia, researchers measured learning loss in low-income communities on the Index of Community Socio-Educational Advantage scale. [Gore et al. \(2021\)](#) examined the mathematical abilities of the third-grade elementary school students from this community and presented data that they were two months behind in their mathematics skills compared to what they had achieved in 2019.

2.5 Learning Loss in Mexico

Finally, learning loss has also been reported in Mexico. [Hevia et al. \(2022\)](#) stated that learning loss occurred with standard deviation values of 0.34 to .045 in literacy and 0.62-0.82 in mathematics. [Hevia et al. \(2022\)](#) further revealed that learning loss also increased “learning poverty” by 25.7%-15.4% in literacy and 29.8%-28.8% in mathematics. Learning poverty is a new term used by UNESCO and the World Bank to refer to the loss of the ability to read simple texts within a period of ten years ([World Bank, 2020](#)).

3. METHODS

This section describes the research methodology, which includes the research design, respondents, types of data collected to address the research objective, and data analysis procedures.

3.1 Research Design

In line with the research objective, this research adopted a qualitative research paradigm to assess impact ([Stern, 2015](#)). In this research, the impact of school closures during the pandemic in Indonesia was assessed qualitatively to determine its connection with students’ English literacy skills. This qualitative model of assessing impact can be found in many fields, including education ([Ellis, 2015](#); [Stern, 2015](#)). The design was relevant to this study because, first, this research was an initial study in Indonesia that examined learning loss in the field of English literacy and was carried out on a small scale, which is the main characteristic of qualitative research. Further, this study was done in an actual context using rigorous qualitative methods to collect data ([Ellis, 2015](#); [Stern, 2015](#)) to provide credible evidence in assessing the impact of school closures.

3.2 Participants and Research Site

The participants in the study were English secondary school teachers teaching in Grades 10-12 in four major provinces in Indonesia: Java, Sumatra, Riau islands, and Bali with a range of teaching experience between 5-20 years. The number of teachers who completed the online questionnaires anonymously was 140 teachers. Ten teachers voluntarily participated in the individual interview and four teachers attended the online focus group discussion. For confidentiality, all teachers’ names in this research report are written in pseudonyms.

The selection of teachers teaching students approaching adulthood, as in this study, is highly pursued in literacy research and recommended by literacy experts. For example, [Vacca \(2005\)](#) believed that students who were growing up and living in the 21st century need very diverse literacy skills, starting from identifying their work interests, taking care of their daily household needs, carrying out their roles as citizens, and balancing their personal lives. This shows that mastery of literacy is necessary, especially in the context of education and for high school students. In addition, research on learning loss at the high school level was rare, showing that learning loss

research was more frequently conducted at the elementary school level (Donnelly & Patrinos, 2021; Engzell et al., 2021).

3.3 Online Questionnaires

A total of 140 teachers completed online questionnaire anonymously. The questionnaire was developed based on the essential English literacy skills for secondary school students mandated by the Ministry of Education and Culture. The questionnaire was distributed online in the form of yes/no questions combined with short answers, and its distribution was assisted by the national forum of English teachers in Indonesia, locally known as *Musyawarah Guru Mata Pelajaran Bahasa Inggris* (MGMP), who invited teachers in Java, Sumatra, Riau Islands, and Bali provinces to complete the questionnaire.

3.4 Interviews

The interviews were carried out online with the participants using open-ended questions and conducted in-depth and individually. Ten teachers, four males and six females, participated in the interviews using video conference applications and internet-based chat applications voluntarily. In this report, they were identified as T1-T10. During the interview, the research team explored the experiences of participants when they taught English during remote teaching throughout the first and second stages of the pandemic in Indonesia, which was between March 2020- the middle of 2021. The research team specifically identified the learning loss in students' abilities in English literacy. After the interview, these teachers were invited to a focus-group discussion explained below.

3.5 Focus Group Discussion

The focus group discussion in this research was conducted online through a video conference application attended by four teachers (two males, two females) who were identified as T2, T5, T6, and T10, who also participated in the individual interview previously. Data collected in this group discussion aimed to confirm and add to the findings obtained from previous individual interview data. In the qualitative paradigm, focus group discussions are considered strong data that "provides access for researchers to enter into participants' minds" (Silverman, 2019, p. 3), and it is also a means to collect quality data in a social context (Patton, 2002). During this discussion, the research team acted as a moderator who discussed and elaborated the initial findings.

3.6 Data Analysis Procedure

All data from this research were analysed inductively, as suggested by Hamied (2017), especially related to initial data about the learning loss. This approach is widely used by researchers when there is limited literature which can be used as a basis for the topic being studied (Bernard, 2011). As previously stated, the topic of learning loss is a topic that has "just surfaced" (Donnelly & Patrinos, 2021, p. 3); therefore, researchers were urged to conduct more research in this field. Further, data analysis

with an inductive approach in this study was adopted from the procedures of [Goddard and Melville \(2004\)](#), [Thomas \(2006\)](#), [Bernard \(2011\)](#), and [Saunders et al. \(2012\)](#), as follows: (1) analysing the findings of the raw data; (2) looking for patterns, themes and clear relationships between the formulation of the problem and the findings from the initial data; and (3) building a theory or framework of thinking on the findings based on the data.

4. RESULTS

This section presents findings from three sets of data – questionnaires, individual interviews, and focus group discussions – and discusses them. Some themes emerged from all data related to the research objective on the impact of school closures on learning loss experienced by secondary school students in their English literacy skills. The findings were classified into learning loss in reading and writing skills. Five main categories of learning loss were identified, including (1) students' ability to think critically while reading; (2) students' skills to make inferences from a text; (3) students' ability to summarise the text; (4) students' attitudes towards writing; and (5) students' proficiency in writing longer paragraphs.

Table 1. Students learning loss in reading and writing skills from the questionnaire.

Learning loss in reading	Questions Part 1: I observed learning loss in my students' reading skills in terms of:	Code	Yes (%)	No (%)
1	Students' general reading skills	Q1A	68.8	31.2
2	Students' ability to respond to higher-order thinking skills questions from a short text	Q2A	70.7	28.3
3	Students' ability to scan and skim a short text	Q3A	68.1	31.9
4	Students' ability to make inferences from a short paragraph	Q4A	53.6	46.4
5	Students' ability to identify the main ideas from a short text	Q5A	52.9	47.1
6	Students' ability to read and understand a short paragraph	Q6A	51.8	48.2
7	Students' ability to summarise a short text	Q7A	51.9	48.2
Learning loss in writing	Questions Part 2: I observed learning loss in my students' writing skills in terms of:	Code	Yes (%)	No (%)
1	Students' general writing skills	Q1B	84.8	15.2
2	Students' ability to write a short report text with a simple topic	Q2B	78.4	21.6
3	Students' ability to submit their writing tasks on time	Q3B	74.8	25.2
4	Students' ability to write a short descriptive text with a simple topic	Q4B	70.7	29.3
5	Students' ability to write a short recount text with a simple topic	Q5B	63.3	36.7
6	Students' ability to write a short narrative text with a simple topic	Q6B	53.6	46.4
7	Students' ability to write a short procedure text with a simple topic	Q7B	52.9	47.1

The result from the questionnaire presented in Table 1 was triangulated with the individual interview and focus group discussion. Ten teachers voluntarily participated in the interview, and four teachers attended the focus group discussion. Table 2 illustrates the main themes that emerged from the interview and focus group discussion, which will be further discussed in the discussion section.

Table 2. Students' learning loss is based on thematic analysis from interviews and focus group discussions.

Learning Loss	Subthemes	Description	Interview
Learning loss in reading skills	Responses to critical thinking question skills while reading	Students' inability to answer higher-order thinking skills	"...if students can identify similarities and differences between what is in the text...most of them didn't answer..." (T1).
	Making inferences	Unable to make inferences from the text	"...I asked something not explicitly stated in the text where they had to read and read again... because the answer is not there" (T2).
	Summarizing the text	Difficulties in summarizing information	"...Most of the students just repeat the same words from the text without properly summarizing it" (T3).
Learning loss in writing skills	Attitudes towards writing	Writing assignments submitted late	"...I haven't had any experience....students submitting their work very late. Usually only one or two students...but now it's like half of them" (T4).
	Proficiency in writing longer paragraphs	Students write only short sentences	"...(they) don't know what else to write..." (T5).

4.1 Learning Loss in Critical Thinking in Reading

From the questionnaire, 68.8% of teachers reported learning loss in general reading skills (see Table 1). One of the main learning losses in reading skills reported in this study was the students' decrease in demonstrating critical thinking in reading skills, as indicated in the questionnaire (see Q2A, Table 1). To explore this phenomenon, the research team asked this question further in the interview. Teacher 1 from the West Java region, who mostly used a chat application, WhatsApp, during the remote teaching, recalled that some of his students could not answer higher-order thinking questions during his online classes. He said,

- (1) We were discussing about global warming. I asked if students could identify similarities and differences between what is in the text and what is happening in our real lives. I have modified my questions hoping that my students could answer them. Most of them did not answer in the chat room, only one or two students answered, usually the same persons. (T1-Q2A)

The loss in the student's ability to demonstrate critical thinking while engaging with texts resonates with T4, a teacher in the Special Region of Jakarta. She recalled that some of her students did not seem to participate during her class, especially when she tried to engage students to answer a question. This lack of participation was also

escalated by the lack of virtual connection as her students turned off the cameras. She said,

- (2) I am lucky that my school subscribed Zoom application so I can meet students virtually in synchronous classes. But oftentimes, when I asked students to answer a question, the class went silent. Some students even turned off their cameras. I asked a question that was not explicitly in the text, like why something is like that, and only few answered. (T4-Q2A).

When the research team investigated the question further in the focus group discussion by asking whether they had encountered a similar situation before the school move to in-person instruction, they remembered that it might have happened before. The only difference was, as T5 reported,

- (3) In the virtual meeting, especially at the beginning of remote classes, I can't make them interact more. It's different from the real classroom, in a way like there's a wall between them, but at least I can see my students' faces and that makes me feel connected. (T5-Q2A)

The next reading skill reported to be lost during the remote learning was the learning loss in making inferences. Making inferences, or the ability to draw conclusions from what is implied in a text, is often considered one of the higher-order thinking skills that students need to master. However, this particular skill was reported to be lost, as illustrated in the following section.

4.2 Learning Loss in Making Inferences

The second reading skill that the teachers believed to have decreased during the remote learning is the students' ability to make inferences or implied meanings from a text. As perceived by 53.6% of participants, students showed a significant decrease in this particular skill as evident in the questionnaire (see Q4A, Table 1). In the interview, T2 from Riau Islands said that when her school shifted to online learning, she found that most students faced difficulties in making inferences from a short text. She recalled,

- (4) I have asked for something not explicitly stated in the text where students had to read the text and gave them a few minutes and read again because the answer was not in the text. When I asked them to infer meaning from the text, they still copied the exact words from the text. (T2-Q4A)

Relevant to the above phenomenon, T6, a teacher in Bali province, noticed the same thing related to students' skill in making inferences from a short text. At the focus group discussion, she gave an example when her students engaged in a discussion about places around the world. She extended the discussion by asking students to draw conclusions from what they had read; however, only a few students answered.

- (5) Students seemed to have difficulties when I asked them to infer implied meaning. For example, when we were reading a text about famous places around the world, at the end of the session, I asked them to draw conclusions, that were not stated in the text, and they just didn't respond. (T6-Q4A)

The other learning loss in reading skills that emerged from this research is the students' decreasing ability to summarise information from the text accurately. An ability to summarise a text or highlight the most important ideas usually in a short

form, was also reported to decrease in this study. This skill is essential as it helps students identify the main ideas of a text.

4.3 Learning Loss in Summarising Information from the Text

As one of the essential skills in students' literacy development, summarising information can help English learners to comprehend a text they read. In the questionnaire, 51.9% of the teachers reported this specific loss (see Q7A, Table 1). To examine this loss further, the research team asked one teacher from Sumatra province, T3, who taught Grade 12. He mentioned that he expected students at this level to have mastered this particular skill as he revealed in the focus group discussion. However, during the online classrooms, this skill has decreased among his students. He recalled that during his online class when they were reading a text, one of the tasks he asked his students was to summarise a text. However, his students could not complete the task well. He said,

- (6) I asked them to summarise the text so that I could assess whether they understood or not. Most of the students just repeat the same words from the text without properly summarising it, I think they should've known how to summarise properly. (T3-Q7A)

He further stated that to complete this task, which he considered 'easy', he had to put extra effort into reading the text together with his students and help them translate some unfamiliar words so they could finish the task. He admitted that this strategy helped some of his students complete the assignment.

In the focus group discussions, some other respondents also experienced the same challenge as encountered by T3 above. Some teachers believed that the skill to summarise the text was considered a less challenging task before the remote teaching period, particularly because teachers could easily check students' understanding and provide assistance to students who needed it.

This section has elaborated on the three learning losses in reading: a lack of critical thinking skills while reading, insufficient skills in making inferences, and a lack of ability to summarise a text. The section below is the learning loss in writing skills which consists of a decrease in students' attitudes towards writing and a decrease in students' ability to write longer paragraphs. As in the reading skills, the data in writing skills were also drawn from questionnaires, interviews, and focus group discussions.

4.4 Learning Loss in Students' Attitudes Toward Writing

The result from the questionnaire indicates that 74.8% of the teachers in this study believed that the remote learning negatively impacted their students' attitudes toward writing (see Table 1, Q1B and Q3B). Respondents saw a decrease in two ways: first, in the number of students who submitted their writing task on time; and second, in the students' participation during the writing process.

Respondents said that during the remote learning, only a few students submitted their writing tasks on time. The rest of the class submitted their work one or two weeks late, and some other students did not submit it at all. To investigate this problem, the interview was conducted with one of the respondents, T4, who believed that during his online classroom, which is a mix of WhatsApp chat application and Google

Classroom, he had to repeatedly remind his students to submit their work, and he even had to discuss this problem with the homeroom teacher who passed on the information to parents.

- (7) Students' attitudes toward writing have been declining. But I think it is not only in writing, maybe in all aspects. I haven't had any experience having to talk to homeroom teachers about students submitting their work very late. Usually only one or two students...but now it's like half of them. (T4, Q3B)

Most of the other respondents, both in the individual interviews and the focus group discussions, agreed with T4's concern above. It was only in the situation of the remote learning during the COVID-19 pandemic that teachers had to involve homeroom teachers to help them find the best solutions for the students. This is expressed by a teacher in East Java province.

- (8) Usually, we talked to homeroom teachers when we found a 'disruptive' kid in the class, which was not very often, but during online classes, the homeroom teachers were also involved in handling the students who didn't participate well enough in the class. (T6, Q3B)

4.5 Learning Loss in Writing Longer Paragraphs

Related to the student's participation in writing tasks, at the focus group discussion, T5, a teacher in West Java province, pointed out one important element missing during the online classroom, namely collaborative writing. The teacher saw a learning loss in the students' writing skills which she believed might have related to the absence of collaborative writing in a regular face-to-face classroom. For example, the teacher reported that in completing a writing task on describing historical places, some of her students could not write more than two sentences. She recalled one of her students said that,

- (9) I don't know what else to write, sometimes we don't understand the instructions, when we meet in the class, we can ask the teacher straight away, me and my friends usually work together and help each other. (T5's student)

In this case, in the focus group discussion, T6, who mixed a video conference application and WhatsApp group during the remote teaching, found some challenges in encouraging students to work together in an online setting. Although he was supported by an IT specialist in his school to manage all his online classrooms, he still believed that in-person interaction was more important. He said,

- (10) Although I got help from the school's IT staff to help students work together in a separate 'room'. I think students' interaction is not as meaningful as when they meet physically in the class, there was, like, something missing in my class. (T6, Q2B)

This indicates that the benefit of physical presence in the class may help students who are struggling with their learning. Other teachers, T2 and T5, believed that they could have provided more direct assistance to students in an in-person class environment. T2 and T5 also added,

- (11) Previously, some students wrote poorly, maybe just wrote two sentences, but I could explain what to do or I asked students to work in pairs, and it helped somehow. But in my Zoom class, I had to

share this document, students joined and left because of the poor internet connection, and at the end of the day, very few students submitted their writing on time. (T2 & T5, Q1B)

5. DISCUSSION

Based on the three sets of data collected (questionnaire, individual interview, and focus group discussion), learning loss occurred in five main literacy skills as reported by the teachers during the period of remote learning in Indonesia from 2020 to 2021, including demonstrating critical thinking while reading, drawing inferences from texts, summarising text content, having positive attitudes toward writing, and composing longer paragraphs. The findings in this study resonate with a similar study in Mexico by [Hevia et al. \(2022\)](#), who also identified the learning loss in literacy skills.

From the results, four important points may have an impact on the students' learning loss: (1) the absence of teachers' and students' physical presence; (2) the low accessibility of internet connection especially for students from low-income families; (3) the digital gap between schools; and (4) the roles of parents and school administrators.

5.1 The Absence of Teachers' and Students' Physical Presence

From all of the data above, it can be inferred that the absence of teachers' and students' physical presence during the remote learning in Indonesia that happened during the COVID-19 pandemic in 2020-2021 impacted students' reading and writing skills. Some of the respondents believed that the absence of teachers' physical presence during the online learning exacerbated the learning loss. This may indicate that the in-person interaction between teachers and students contributes to the student's success in learning.

In this study, the teachers considered the need to interact physically in the classroom. Earlier in the findings, T4 said that students' attitudes towards writing had decreased, which was a result of the absence of peers while completing the writing tasks. Teachers in this study also believed that the process of delivering the material could have been more effective when the students were in the physical classroom as the teachers could see their students' facial expressions to help them check whether they understood the material. To achieve this goal, teachers in this study often asked students to turn on their cameras because to see them physically is what "gives them energy" ([Alerby et al., 2021, p. 109](#)), a situation that was commonly experienced by most teachers and students during the pandemic. Therefore, in online classrooms, the need to have teachers' and students' physical presence during school closures may also prove that body movement, talk, and facial expressions are, inevitably, important assets of educational instruction ([Hall & Looney, 2019](#)).

5.2 The Lack of the Internet Access among Students from Low-Income Family

Apart from the teachers' and peers' physical presence to enhance the students' success in online classes, another concern raised by the teachers was the students' lack of participation during the online classes. As revealed in both the individual interviews and focus group discussions, the insufficient student participation in the online classes also resulted from the unstable internet connections at the students' residences. Many

teachers raised a concern about students who were left behind as they were unable to access the classroom discussions or tasks online.

Instead, students from low-income families were significantly impacted by the school closures, as also reported in the research on learning loss in Mexico (Hevia et al., 2022). In other research in the Indonesian context, Pradana and Syarifudin (2021) reported that when teaching and learning activities cannot be conducted in-person, children from low-income families do not have the facilities to access digital learning. Although the Indonesian government had launched the data plan subsidy, 43% of the respondents in their study believed that the subsidy was not equally distributed to the rural areas, while there was 29% believed that the subsidy was not useful because students in rural areas did not usually have computers, laptops, or smartphones. The other 18% of the respondents did not have either the data plan subsidy or the devices needed. This condition might have worsened the learning loss as students were unable to access the materials given but on the other hand, they still needed to complete the tasks.

Related to the internet plan subsidy, the Indonesian Ministry of Education and Culture has assisted teachers, secondary school students, university students, and lecturers who have limited access to the internet during the pandemic. The initiative, called *Bantuan Kuota Kemendikbud*, was in the form of a free 20GB to 42 GB internet monthly plan topped up automatically to teachers' and students' mobile phone numbers registered through the school system and has been distributed from September 2020 until early 2021 (Ministry of Education and Culture, 2020). While this plan may be effective for those living in urban areas, students and teachers living in rural areas, moreover those without smartphones, did not reap the same benefits. This situation calls for a more detailed and comprehensive plan from the Indonesian government through mapping out some factors, such as geographical terrains and infrastructures of different regions, before launching any initiatives related to education emergency schemes.

5.3 The Unequal Access of Technology among Schools

To a certain extent, the unequal use of technology in Indonesian schools during online learning also brings different results in the students' learning outcomes. Ten teachers interviewed individually in this research showed that their schools had different policies regarding the use of technology during the online learning. Some schools have had the privilege of providing quality education during the pandemic through the use of commercial video conferences, while other schools have been struggling to use even lower technology, such as group chats in WhatsApp or the use of free learning management systems like Google Classrooms or Edmodo. The unequal use of technology for educational purposes at schools in the cities and countryside may have created a digital gap for the teachers and students, which might have been another contributing factor to students' learning loss.

For example, data from the questionnaire revealed that almost 64% of the respondents said that they relied on low technology, especially the popular chat application in Indonesia, WhatsApp, to deliver their teaching materials during online learning. While there has been very limited research on the sole use of WhatsApp in teaching and learning during the pandemic, another researcher suggested that teachers use a 2:1 formula, which is 2 hours of face-to-face classroom interaction and 1-hour

interaction through WhatsApp to make blended learning effective (Barhoumi, 2015). In contrast, respondents in this study mentioned that throughout the pandemic, WhatsApp had been the only media used although some teachers also combined it with free learning management systems such as Google Classroom or Edmodo.

In some other schools, the use of videoconferencing applications such as Zoom or Google Meet helps teachers in many ways when delivering lessons. For example, Ms. Saskia believed that synchronous meetings through Zoom helped her see her students' facial expressions better.

The unequal use of technology among schools in this study also raised concerns about the teachers' deficit assumption related to the students' online participation. Teachers who were interviewed mentioned that the use of videoconferencing, to some degree, was not effective as there were only a small number of students who attended the class or turned on their cameras. Thus, teachers turned to WhatsApp, which gave students more 'freedom' during the class such as no requirement to show their faces.

5.4 The Role of Parents and School Administrators during School Closures

Some teachers in this study believed that school principals and vice principals in curriculum division were the ones they profoundly relied on during the forced transition from in-person to online classes. Respondents had expected that school principals and vice principals could give tutorials and support for all teachers on how to teach during the pandemic. Peyravi et al. (2020), for example, recommended that various simple, functional, and free online courses should be widely available. In addition, a more flexible curriculum was also needed (Wahyono et al., 2020).

In addition to school administrators, the role of parents to support their children during the online learning was increasingly significant. Respondents, as revealed from the findings above, often involved homeroom teachers to continuously remind their children to attend school virtually, both in the group chat, WhatsApp, or in video conference applications such as Zoom or Google Meet. Another important responsibility of parents during the school closures was to repeatedly raise the students' attention to submit their assignments on time. This situation calls for a stronger partnership between parents and teachers to help students achieve success in online classrooms in the future.

6. CONCLUSION

From the findings above, it was revealed that the online learning during the pandemic in Indonesia, to some extent, had impacted the students' learning loss, especially in reading and writing skills as in demonstrating critical thinking while reading, drawing inferences from texts, summarising text content, having good attitudes toward writing, and composing longer paragraphs. Some important concerns have been raised related to the limited access to the internet among students from low-income families, the contribution of the government internet subsidy, the unequal use of technology in schools, and the role of parents and school administrators.

Further research that focuses on the learning loss at a larger scale in different school levels and on the remedial program from the Indonesian government, as in the

launch of the Independent Curriculum, known as Emancipated Curriculum (*Kurikulum Merdeka*) is needed to help students accelerate their learning.

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REFERENCES

- Alerby, E., Ekberg, N., & Johansson, M. (2021). 'I miss the physical presence of the students': Swedish teachers' experiences of online teaching and learning during the COVID-19 pandemic. *Education in the North*, 28(3), 100-120. <https://doi.org/10.26203/jhqw-6007>
- Amri, A., Tebe, Y., Siantoro, A., Indrawati, M., & Prihadi, C. (2021). Teachers' voices on school opening in Indonesia during COVID-19 pandemic. *Social Sciences and Humanities Open*, 4(1), 100218. <https://doi.org/10.1016/j.ssaho.2021.100218>
- Azevedo, J. P., Hasan, A., Goldemberg, D., Iqbal, S. A., & Geven, K. (2020, June). *Simulating the potential impacts of COVID-19 school closures on schooling and learning outcomes: A set of global estimates* [Policy research working paper No. 9284]. World Bank Group.
- Barhoumi, C. (2015). The effectiveness of WhatsApp mobile learning activities guided by activity theory on students' knowledge management. *Contemporary Educational Technology*, 6(3), 221-238. <https://doi.org/10.30935/cedtech/6151>
- Bernard, H. (2011). *Research methods in anthropology* (5th ed.). AltaMira Press.
- Chetty, R., Friedman, J. N., & Rockof, J. E. (2014). Measuring the impacts of teachers II: Teacher value-added and student outcomes in adulthood. *American Economic Review*, 104(9), 2633-2679. <http://dx.doi.org/10.1257/aer.104.9.2633>
- CNN Indonesia. (2021, September 28). *Nadiem: Pandemi bikin anak stres dan berakibat learning loss* [Nadiem: Pandemic causes stress for children and leads to learning loss] <https://www.cnnindonesia.com/nasional/20210928135704-20-700474/nadiem-pandemi-bikin-anak-stres-dan-berakibat-learning-loss>
- Currie, J., & Thomas, D. (2001). Early test scores, school quality and SES: Longrun effects on wage and employment outcomes. In S. Polachek (Ed.), *Research in labor economics* (Vol. 20, pp. 103-132). Emerald Group Publishing Limited. [https://doi.org/10.1016/S0147-9121\(01\)20039-9](https://doi.org/10.1016/S0147-9121(01)20039-9)
- Donnelly, R., & Patrinos, H. A. (2021). Learning loss during Covid-19: An early systematic. *Prospects*, 51, 601-609. <https://doi.org/10.1007/s11125-021-09582-6>
- Ellis, J. (2015, July). *Using qualitative method to assess impact*. NVCO Charities Evaluation Services.
- Engzell, P., Frey, A., & Verhagen, M. (2021). Learning loss due to school closures during the COVID-19 pandemic. *Proceedings of the National Academy of Sciences*, 118(17), e2022376118. <https://doi.org/10.1073/pnas.2022376118>

- Fore, H. (2021, January 12). *Los ni nos y ni nas no pueden permitirse otro a no sin escuela* [Boys and girls cannot afford anything else without school]. UNICEF. <https://www.unicef.org/es/comunicados-prensa/ninos-no-pueden-permitirse-otro-ano-sin-escuela>
- GEM-UNESCO. (2020, September). *Act now: Reduce the impact of COVID-19 on the cost of achieving SDG 4* [Policy Paper 42]. <https://unesdoc.unesco.org/ark:/48223/pf0000374163>
- Goddard, W., & Melville, S. (2004). *Research methodology: An introduction* (2nd ed.). Blackwell Publishing.
- Gonzalez, T., de la Rubia, M. A., Hincz, K. P., Comas-Lopez, M., Subirats, L., Fort, S., & Sacha, G. M. (2020). Influence of COVID-19 confinement on students' performance in higher education. *PLoS ONE*, 15(10), e0239490. <https://doi.org/10.1371/journal.pone.0239490>
- Gore, J., Fray, L., Miller, A., Harris, J., & Taggart, W. (2021). The impact of COVID-19 on student learning in New South Wales primary schools: An empirical study. *Australian Education Research*, 48(4), 605-637. <https://doi.org/10.1007/s13384-021-00436-w>
- Hall, J. K., & Looney, S. D. (2019). *The embodied work of teaching*. Multilingual Matters
- Hamied, F. A. (2017). *Research methods: A guide for first-time researchers*. UPI Press.
- Hasudungan, O., Ofianto, & Ningsih, T. Z. (2022). Learning loss: A real threat in education for underprivileged students and remote regions during the Covid-19 pandemic. *International Journal of Distance Education and e-Learning*, 7(1), 12-23. <https://doi.org/10.36261/ijdeel.v7i1.2223>
- Hevia, F. J., Vergara-Lopez, S., Velasquez-Duran, A., & Calderon, D. (2022). Estimation of the fundamental learning loss and learning poverty related to COVID-19 pandemic in Mexico. *International Journal of Educational Development*, 88. <https://doi.org/10.1016/j.ijedudev.2021.102515>
- Kuhfeld, M., Tarasawa, B., Johnson, A., Ruzek, E., & Lewis, K. (2020, November). *Learning during Covid-19: Initial findings on students' reading and math achievement and growth* [Research brief]. NWEA Research. <https://www.nwea.org/research/publication/learning-during-covid-19-initial-findings-on-students-reading-and-math-achievement-and-growth/>
- Maldonado, J. E., & Witte, K. D. (2020). The effect of school closures on standardized student test outcomes. *British Educational Research Journal*, 48(1), 49-94. <https://doi.org/10.1002/berj.3754>
- Ministry of Education and Culture. (2020, November 25). *Majukan literasi daerah, Kemendikbud giatkan gerakan untuk literasi semesta (Geulis)* [Enhancing regional literacy, the Indonesian Ministry of Education and Culture launches the universal literacy initiative or Geulis]. <https://www.kemdikbud.go.id/main/blog/2020/11/majukan-literasi-daerah-kemdikbud-giatkan-gerakan-untuk-literasi-semesta-geulis>
- Newton, D. (2020, March 26). *Most teachers say they are "not prepared" to teach online*. Forbes magazine. <https://www.forbes.com/sites/dereknewton/2020/03/26/most-teachers-say-they-are-not-prepared-to-teach-online/?sh=579afb777f2c>

- Orloy, G., McKee, D., Berry, J., Boyle, A., DiCiccio, T., Ransom, T., Rees-Jones, A., & Stoye, J. (2021). Learning during the Covid-19 pandemic: It is not who you teach, but how you teach. *Economics Letters*, 202, 109812. <https://doi.org/10.1016/j.econlet.2021.109812>
- Patton, M. Q. (2002). *Qualitative evaluation and research methods* (3rd ed.). Sage.
- Peyravi, M., Ahmadi Marzaleh, M., Shamspour, N., & Soltani, A. (2020). Public Education and electronic awareness of the New Coronavirus (COVID-19): Experiences from Iran. *Disaster Medicine and Public Health Preparedness*, 14(3), e5-e6. <https://doi.org/10.1017/dmp.2020.94>
- Pier, L., Hough, H. J., Christian, M., Bookman, N., Wilkenfeld, B., & Miller, R. (2021, January 25). COVID-19 and the educational equity crisis: Evidence on learning loss from the CORE data collaborative. *Policy Analysis for California Education*. <https://edpolicyinca.org/newsroom/covid-19-and-educational-equity-crisis>
- Pradana, M., & Syarifudin, S. (2021). The struggle is real: Constraints of online education in Indonesia during the COVID-19 pandemic. *Frontiers in Education*, 6, 753776. <https://doi.org/10.3389/educ.2021.753776>
- Psacharopoulos, G., & Patrinos, H. A. (2018). Returns to investment in education: A decennial review of the global literature. *Education Economics*, 26(5), 445-458. <https://doi.org/10.1080/09645292.2018.1484426>
- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for business students*. Pearson Education Limited.
- Schult, J., Mahler, N., Fauth, B., & Lindner, M. A. (2022). Did students learn less during the COVID-19 pandemic? Reading and mathematics competencies before and after the first pandemic wave. *School Effectiveness and School Improvement*, 33(4), 544-563. <https://doi.org/10.1080/09243453.2022.2061014>
- Silverman, D. (2019). *Qualitative research*. SAGE.
- Stern, E. (2015). *Impact evaluation: A guide for commissioners and managers* [Evaluation report]. Department of International Development. <https://www.gov.uk/research-for-development-outputs/impact-evaluation-a-guide-for-commissioners-and-managers>
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27(2), 237-246. <https://doi.org/10.1177/1098214005283748>
- Tomasik, M., Helbling, L. A., & Moser, U. (2021). Educational gains of in-person vs. distance learning in primary and secondary schools: A natural experiment during the COVID-19 pandemic school closures in Switzerland. *International Journal of Psychology*, 56(4), 566-576. <https://doi.org/10.1002/ijop.12728>
- UNESCO. (2020). *UN Secretary-General warns of educational catastrophe, pointing to UNESCO's estimate of 24 million learners at risk of dropping out*. <https://en.unesco.org/news/secretary-general-warnseducation-catastrophe-pointing-unesco-estimate-24-million-learners-0>
- United Nations. (2020, August). *Policy brief: Education during COVID-19 and beyond*. <https://unsdg.un.org/resources/policy-brief-education-during-covid-19-and-beyond>
- Vacca, R. T. (2005). *Content area reading: Literacy and learning across the curriculum*. Allyn & Bacon.

- Wahyono, P., Husamah, H., & Budi, A. S. (2020). Guru profesional di masa pandemi COVID-19: Review implementasi, tantangan, dan solusi pembelajaran daring [Professional teachers during the COVID-19 pandemic: Review of online learning implementation, challenges and solutions]. *Jurnal Pendidikan Profesi Guru*, 1(1), 51-65.
- World Bank. (2020, May 7). *The COVID-19 pandemic: Shocks to education and policy responses*. <https://www.worldbank.org/en/topic/education/publication/the-covid19-pandemic-shocks-to-education-and-policy-responses>
- World Bank. (2021, December 6). *Learning losses from COVID-19 could cost this generation of students close to \$17 trillion in lifetime earnings*. <https://www.worldbank.org/en/news/press-release/2021/12/06/learning-losses-from-covid-19-could-cost-this-generation-of-students-close-to-17-trillion-in-lifetime-earnings>