

## Anticipating Learning Loss in Students: A Study of Government Policy and Teacher Innovation

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### ABSTRACT

The phenomenon of learning loss is no stranger to the world of education. The presence of Covid-19 has exacerbated this condition. If it is not anticipated, it will have an impact on decreasing the quality of the nation's generation. This research aims to analyze the policies of the Indonesian government and teachers in tackling learning loss in students. The research method used is Systematic Literature Review (SLR) with meta synthetic data analysis techniques. This study found that the Indonesian government's policies are 1) online learning; 2) implementation of three curricula; 3) teacher training and mentoring; and 4) provision of textbooks and digital teaching tools. Meanwhile, innovations made by teachers include 1) psychosocial assistance; 2) utilization of technology; 3) approach; 4) design varied learning; 5) numerical literacy assistance; 6) blended learning; 7) home visit; and 8) development of learning media. Thus, to minimize learning loss, government policies and teacher innovation are needed.

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## 1. INTRODUCTION

Learning loss is felt by the world population due to restrictions and even the closure of educational institutions during the Covid-19 Pandemic (Engzell et al., 2021). Learning loss is also inevitably caused by the lack of parental assistance when studying from home because parents are busy working outside the home, a phenomenon that is increasingly happening to students in Indonesia. Learning loss is the loss of learning opportunities due to the lack of interaction between teachers and students during the learning process, resulting in a decrease in students' mastery of competencies (Syamsiyah, 2020). Learning loss is the existence of a learning process that is not maximized in schools (Li et al., 2020). Not maximizing the

learning process, will result in the results of information obtained by students and student learning outcomes that are also not maximized. Thus, learning loss will be able to impact the quality of human resources that will be born in the years during the Covid-19 pandemic (Kashyap et al., 2021; Yadav, 2021; Zakharova et al., 2021).

Research reports show that the risk of learning loss is very large during the coronavirus pandemic. However, this should not make us stand idly by without doing anything. There are many things we can do to overcome this learning loss, especially with the advancement of the current digital technology era (Maemunah, 2018). There are many things that the government and teachers can do to anticipate these impacts.

Anticipating this phenomenon, all parties have made various innovations including the government and teachers. One of the innovations made by teachers is the utilization of applications in online learning such as Google Meet (Pernantah et al., 2021), Zoom Meeting (Kuntarto et al., 2021), WhatsApp (Prasetyo & Zulela, 2021), Google Classroom (Ghulamudin & Habibi, 2020), and other applications. The government has also made various policies to break the chain of the spread of Covid-19 and the continuity of education, including simplifying the curriculum, improving the new curriculum, and giving freedom and discretion to the education unit level to use a curriculum that is considered appropriate to the needs of each education unit level. The government also provides policies to provide training and mentoring for teachers/principals and the provision of textbooks and digital teaching tools. Finally, the government also provides options for learning units to use the curriculum options offered by the government (Kemdikbudristek, 2021). There are many more innovations made by teachers and policies made by the government. Both realize that if not immediately anticipated, it will have a negative impact on the quality of human resources.

Research on learning loss has been done many times before, including Wahyudi's research (2021) about Learning Loss and strategies to minimize it, Hadi's (2021) about the phenomenon of learning loss, Farrini (2022) about the principal's strategy in dealing with the challenges of learning loss, Adem (2021) about comparative study of learning loss in students and other research. In contrast to previous studies, this research focuses on government policies and teacher innovation to anticipate learning loss in students. This research is important to see how all parties, especially the government and teachers, move to overcome the problem.

## 2. METHODS

This study uses the type of research a Systematic Literature Review (SLR). The systematic literature review in this study was carried out by compiling articles on learning loss that were published from 2021 to 2023. The initial number of articles obtained was 131 key learning loss articles. Then the articles were reduced according to the criteria according to the research focus, namely government policies and teacher innovation in anticipation of learning loss, so the journals analyzed were 17 national journals. For more details can be seen in Table 1.

**Table 1.** Research on Learning Loss from 2021-2023

No	Authors	Year	Findings
1	Sovayunanto	(2022)	Students are at great risk of experiencing learning loss
2	Mahendra et al.	(2022)	Learning loss is the impact of the education system that occurred during the Covid-19 pandemic, namely distance learning.
3	Muthmainnah	(2022)	Solutions that can be taken to prevent learning loss are developing learning media during the Covid-19 Pandemic, psychosocial assistance, and numeracy literacy assistance.
4	Widyasari et al.	(2022)	The government, together with schools and teachers, need to take action to minimize learning loss

5	Muskita et al.	(2022)	The application of blended learning is able to balance collaboration between online and face-to-face learning which mutually reinforces to increase student learning outcomes that have not been achieved due to learning loss that occurs at all levels of education.
5	Martama	(2023)	As an effort to increase learning motivation, as well as reduce learning loss in students in Hybrid Learning.
6	Dwilamisisa et al.	(2022)	One way to overcome learning loss is with quantum learning
7	Arzaqi et al.	(2022)	Various mitigation efforts have been made by school principals in overcoming learning loss, namely registering as driving schools, home visits and establishing active synergy among school members.
8	Fadilah et al.	(2022)	There is a compatibility between the efforts made by PAI teachers in carrying out learning with the theory of overcoming existing learning loss. These efforts are reflected in the completeness of the learning materials given to children, the learning methods used, the process of monitoring children through active communication with parents or guardians of children and the use of learning media that are adapted to the needs and circumstances of the child.
9	Rejeki	(2022)	Recovery strategies that can be carried out are socialization, parenting FGDs, literacy assistance, monitoring and evaluation.
10	Marera	(2022)	The learning loss that occurs in students is actually not only caused by the pandemic situation, but due to the ineffectiveness of learning in general. Ineffective learning occurred in the pre-pandemic period. It's just that the presence of a pandemic is considered further to exacerbate the incidence of learning loss in students
11	Hanafiah et al.	(2022)	The teacher's efforts as the front guard in minimizing learning loss, namely designing learning that varies according to the abilities, talents and interests of students (Learning Based on Student Needs).
12	Amalia et al.	(2023)	Innovations in overcoming Learning Loss are (1) Home visits which aim to better find out what obstacles students are actually experiencing and also to establish cooperation with parents, (2) Emergency face-to-face learning which aims to facilitate students who really cannot do learning online. (3) Assignments in groups that aim to arouse the spirit of motivation in learning and also raise the value of student responsibility.
13	Kemendikbudristek	(2021)	Government policy with the implementation of a new curriculum, teacher training, and provision of textbooks and digital teaching tools
14	Jojo	(2022)	Freedom of Learning Curriculum to overcome learning loss

15	Haryati	(2022)	Efforts to overcome learning loss with psychosocial assistance, preparation of learning, implementation of an independent curriculum, and use of technology
16	Hastini	(2020)	Teachers can design varied learning
17	Hazin	(2021)	Teachers can use approaches and communication with parents

The systematic literature review research procedure with a qualitative approach was carried out by following the steps according to Francis & Baldesari, namely ) formulating the review question; 2) conducting a systematic literature search; 3) screening and selecting appropriate research articles; 4) analyzing and synthesizing qualitative; 5) maintaining quality control; and 6) presenting findings. The data analysis process in this study uses the meta-synthesis method with the aim of answering research questions by summarizing various research results.

### 3. FINDINGS AND DISCUSSION

#### 3.1. Indonesian Government Policy

Through the Ministry of Education and Culture, the government has implemented various policies in an effort to overcome the learning crisis, one of which is to overcome learning loss. Like other countries, learning loss is a real threat to human resources, as warned by UNESCO and the World Bank (Masterman, 2020). The Indonesian government continues to move by cooperating with various parties, especially ministries and teachers.

The Indonesian government has made several policies, such as simplifying the curriculum, refining the new curriculum, and giving freedom and discretion to the education unit level to use the curriculum that is considered appropriate to the needs of each education unit level. The government also provides policies to provide training and mentoring for teachers/principals and the provision of textbooks and digital teaching tools. Finally, the government also provides options for learning units to use the curriculum options offered by the government (Kemdikbudristek, 2021).

##### 1. Online Learning

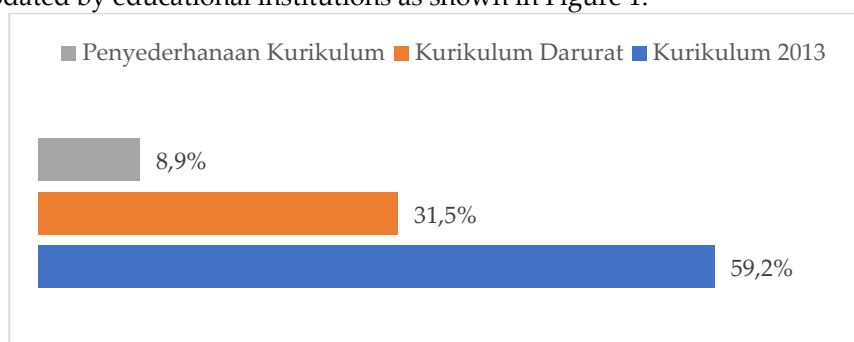
The Ministry of Education and Culture issued a circular letter on Online Learning and Working from Home to Prevent the Spread of Covid-19 by a. enforcing online learning from home for students and college students; b. employees, teachers, and lecturers conducting work, teaching or lecturing activities from home (Working From Home/BDR) through video conferences, digital documents, and other online facilities (Mendikbud, 2020). This policy is very important, despite social restrictions, learning activities are still carried out. Online learning activities are carried out using applications that can bring teachers and students together directly in cyberspace. This policy makes teachers move by utilizing all applications including WhatsApp, Zoom Meeting, Google Meet, Skype, and others. When implementing online learning, there are several obstacles faced by teachers including the lack of supporting media, limited network access and internet quota as well as supervision in evaluating the learning process while students are learning from home (Jusuf & Maaku, 2020). Although there are obstacles, teachers continue to innovate so that learning is still carried out.

##### 2. Three Curriculum Implementation Policy

In late August, while the COVID-19 Pandemic was ongoing, the Government issued a policy to mitigate learning loss due to the COVID-19 Pandemic by giving schools the option to use a simplified curriculum (emergency curriculum) to focus on strengthening character and fundamental competencies. In addition, the government also provided literacy and numeracy modules to help teachers implement the curriculum. There are also modules for parents that can be used at home. This policy gives education units the flexibility to implement the 2013 curriculum fully, to use the emergency curriculum, which is a simplification of the 2013

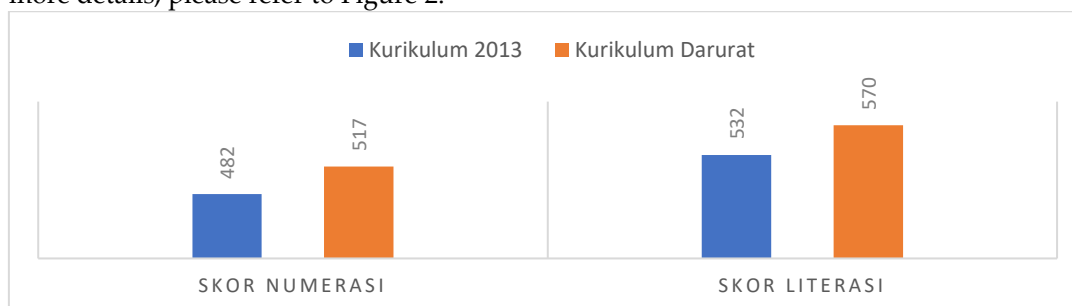
curriculum developed by the government, or to simplify the 2013 curriculum independently (Anggraena et al., 2022).

Based on a survey of learning during the pandemic at the primary and secondary education levels conducted by BSKAP in July 2021, 59.2% of education units continue to use the 2013 curriculum in full, 31.5% of education units use the emergency curriculum, and 8.9% of education units simplify the 2013 curriculum independently, and there are around 0.4% of education units using other curriculums (Anggraena et al., 2022). This decision is accommodated by educational institutions as shown in Figure 1.



**Figure 1.** Curriculum Implementation during the COVID-19 Pandemic

Based on the implementation of the curriculum during the COVID-19 pandemic, it was found that students using the emergency curriculum had better learning outcomes than students using the full 2013 Curriculum, regardless of their socio-economic background. A survey conducted on 18,370 students in grades 1-3 in 612 schools in 20 districts/cities from 8 provinces during April-May 2021 showed significant differences in learning outcomes between Curriculum 2013 and the emergency curriculum. The difference in literacy and numeracy scores is equivalent to 4 months of learning. In the numeracy score, students using Curriculum 2013 scored 482 compared to students using the emergency curriculum with a score of 517. While the literacy score of students using Curriculum 2013 obtained a score of 532 compared to students using the emergency curriculum with a score of 570 (Anggraena et al., 2022). For more details, please refer to Figure 2.



**Figure 2.** Difference in literacy and numeracy scores

When the government gave the freedom to choose one of the three curricula, schools encountered several obstacles in the field. According to Rofiq (2021), The implementation of the emergency curriculum has not run perfectly due to the lack of facilities and the lack of understanding of information technology from both teachers and students. Meanwhile, according to Supriatna (2021), explains the emergency curriculum that is implemented in madrasahs and is close to the standard, but the core learning activities are still far from the standard which has implications for the effectiveness of online learning. Seeing this, the government continues to study and produce policies that can form an adjusted curriculum during the pandemic that makes us realize the uniqueness of each student. So that seeing the

learning loss that cannot be overcome by selecting the 3 curricula offered, Nadiem Makarim as the Minister of Education and Culture issued a policy related to the Merdeka Curriculum as development of curriculum-13 (Jojo & Sihotang, 2022). The Merdeka Curriculum is one of the strategies implemented by the Ministry to improve learning due to Covid-19, and other factors.

3. Teacher/principal training and mentoring

This activity is part of the efforts made by the Ministry of Education and Culture, one of which is the Covid-19 Pandemic Series Learning Teacher program. The Pandemic Period Series Learning Teacher Program is a form of response from the Ministry of Education and Culture to answer teachers' problems during distance learning during the Covid-19 pandemic. Such as problems with learning strategies, classroom management and difficult access to telecommunications in 3T areas (underdeveloped, frontier, outermost). The *Guru Belajar*, Pandemic Series program, is designed to assist as many teachers and education personnel as possible in conducting distance learning in accordance with the special conditions of the pandemic period while still providing meaningful basic supplies for students to carry out independent learning.

The objectives of the "Guru Belajar Covid-19 Pandemic Series" program are to a) Improve teacher competence in designing distance learning based on a simplified curriculum load, b) Develop teacher skills in managing distance learning that involves students, c) Develop teacher skills in using technology for distance learning, d) Improve teacher skills in conducting distance learning assessments that have an impact on learning quality. The *Guru Belajar* program will be implemented online and divided into three stages: Technical Guidance, Education and Training (Diklat), and transfer (GTK, 2020).

The above program is part of the many trainings organized by the ministry to update and upgrade the competencies needed, especially during emergencies such as Covid-19. Many of the training materials provided are in the areas of curriculum, literacy, and utilization of information technology.

4. Provision of textbooks and digital teaching tools

The government, through the Ministry launched three applications that provide digital books and devices, namely the Indonesian Book Information System (SIBI), *Rumah Belajar*, and the Merdeka Teaching Platform (PMM). First, the Indonesian Book Information System (SIBI) can be accessed at the link <https://buku.kemdikbud.go.id/>. This system is expected to increase the effectiveness and efficiency of organizing the book ecosystem and realizing a healthy book ecosystem. The development of this system is carried out gradually and continuously (SIBI, 2021).

Second, *Rumah Belajar*, which can be accessed at <https://belajar.kemdikbud.go.id/>. A learning portal that provides learning materials and communication facilities that support interaction between communities. *Rumah Belajar* is present as a form of learning innovation in the industrial era 4.0 that can be utilized by students and teachers of Early Childhood Education (PAUD), Elementary School (SD), Junior High School (SMP), Senior High School / Vocational (SMA / SMK) equivalent. By using *Rumah Belajar*, we can learn anywhere, anytime with anyone. All content in *Rumah Belajar* can be accessed and utilized for free. With features such as Maya Class, Problem Bank, Learning Resources, Maya Laboratory (Belajar, 2020).

Third, the Merdeka Teaching Platform can be accessed at the link <https://guru.kemdikbud.go.id/>. Merdeka Mengajar Platform has a vision to realize a collaborative ecosystem to foster learning effectiveness and a positive work climate. There are several components included in the Merdeka Mengajar Platform, namely content crowdsourcing (content development based on contributions that can be made by a wide audience), online learning communities (fellow teachers learn from each other, help, support and share), independent learning (online training for competency development), career

planning and progress (teacher portfolio development), and teacher professional networks (a forum that presents profiles, experiences and professional skills of teachers) (Priantini et al., 2022).

These three websites can be used by teachers to access digital books, learning resources and curriculum. Due to online learning, all components can be accessed digitally by teachers and students. So that there is nothing in the minds of students that the facilities provided are inadequate. Disadvantages certainly exist, but the presence of these three websites is the answer to continuing to organize education. If Covid-19 ends, this website must remain an option because it is in accordance with the needs and developments of globalization.

The government and schools can minimize learning loss with roles including 1) optimizing teaching and learning support and resources during school closures) such as the Learning House Portal belonging to the Ministry of Education, Culture, Research and Technology; 2) train teachers in mastering blended learning methods, namely synchronous and asynchronous learning; 3) provide targeted cellular data package subsidies; 4) Re-budgeting in the use of the School Operational Assistance Program (BOS). More affirmative education policies from the central and regional governments are highly expected by remote communities (Handoyo, 2019). Regarding subsidizing cellular data packages for students, teachers and lecturers. The government's good intention to ease the burden on students through this policy should be appreciated. However, the government needs to look again, who is actually the target of this policy, if all teachers and students, then it must be ensured that students who need it the most, such as less fortunate students, do not have smartphones and remote areas that do not have adequate internet access in implementing distance learning (Widyasari et al., 2022).

### 3.2. Teacher Innovation

The government and teachers are at the forefront of minimizing learning loss with various innovations. The following innovations made by teachers include:

#### 1. Development of learning media

Teachers develop learning media. The distance learning process is carried out using several online app options, such as WhatsApp, Google Classroom, Google Meet, Zoom Meeting, and so on. These applications are used because they suit the needs during the learning process. For example, the WhatsApp application is used because it can send text messages, voice notes, images, videos that can contain teaching materials. Meanwhile, the Google Classroom application is used because its function is almost the same as WhatsApp but for this application it is more widely used for students to send assignments or discussions with teachers. Furthermore, for the Google Meet and Zoom Meeting applications, namely applications that can be used by students and teachers to be able to meet face-to-face (Widyastuti, 2021).

Learning loss that occurs in students will have a negative impact on their academic aspects and personal growth. The efforts and innovations made by teachers above can minimize this impact. This condition requires high dedication so that they do not consider this as a burden but as a form of responsibility for their profession.

#### 2. Psychosocial Assistance. In psychosocial assistance, what is carried out is a) coaching facilitator activities, coaching facilitators is mentoring for facilitators who will teach students so as to reduce learning loss, motivation loss and participant loss. This activity also plans progressive matching environmental-based psychosocial assistance; b) media dissemination in the form of preparing modules and manual books, compiling modules and manual books aimed at making complete activity implementation guidelines and psychosocial assistance guidelines that contain substances about a series of methods for preventing and overcoming learning loss to stimulate literacy and numeracy skills, foster participation and motivation to learn; c) parenting talk show or FGD, this activity is carried out offline which is a prevention and curation step in psychosocial assistance. The resource persons for this activity were

- experts in the fields of pedagogy, curriculum, counseling and professionalism; and 4) monitoring and evaluation, this monitoring activity is an activity to review and observe how far the progress of the implemented program. This activity is useful for finding deficiencies or reflecting during the course of the program (Muthmainnah & Rohmah, 2022; Rejeki, 2022).
3. Numerical Literacy Assistance. Literacy assistance activities consist of several types of activities including: identification and pre-test, assessment and post-test, implementation of learning activities with companion modules (Muthmainnah & Rohmah, 2022; Rejeki, 2022).
  4. The application of blended learning can encourage students to study independently, motivate students by utilizing internet-based technology, as well as increase student learning activity and make it easier for students to find various learning materials from virtual sources. The application of blended learning is able to balance collaboration between online and face-to-face learning which mutually reinforces to increase student learning outcomes that have not been achieved due to learning loss that occurs at all levels of education (Muskita et al., 2022). The results of the study show that blended learning can encourage students to study independently, motivate students by utilizing internet-based technology, as well as increase student learning activity and make it easier for students to find various learning materials from virtual sources. The application of blended learning is able to balance collaboration between online and face-to-face learning which mutually reinforces to increase student learning outcomes that have not been achieved due to learning loss that occurs at all levels of education (Martama, 2023)
  5. The concept of socio-technical knowledge management which includes infoculture, infostructure, and infrastructure by implementing modern class learning. To detect the occurrence of learning loss in students, the school needs to carry out a self-designed diagnostic assessment. Steps to deal with learning loss include restoring learning activities through implementing certain strategies to carry out deeper learning by emphasizing essential material and skills. (Marera, 2022).
  6. Home visit which aims to find out more about what obstacles students are actually experiencing and also to establish cooperation with parents. Furthermore, group assignments aim to arouse the spirit of motivation in learning and also raise the value of student responsibility (Amalia et al., 2023; Arzaqi et al., 2022)
  7. Designing learning that varies according to the abilities, talents and interests of students (learning based on the needs of students) using various approaches (Haryati & Rumah, 2022; Hastini et al., 2020; Hazin et al., 2021).
  8. The teacher must analyze the learning gaps experienced by students or learners
  9. Outcome orientation is an essential competency and prerequisite
  10. Teachers must prioritize personalization in organizing learning
  11. Teachers and parents need to synergize, both in communication on a bi-weekly basis or when parents or teachers have problems surrounding student learning development
  12. Teachers and parents as the figures closest to students must maintain consistency and a strong commitment to accompany students in the teaching and learning process (Fadilah et al., 2022).

#### 4. CONCLUSION

The presence of Covid-19 creates a learning loss phenomenon due to social restrictions and school closures. This phenomenon needs to be anticipated and overcome by various parties, including the government with its policies and teachers with their innovations. The Indonesian government's policies are 1) online learning; 2) implementation of three curricula; 3) teacher training and mentoring; and 4) provision of textbooks and digital teaching tools. Meanwhile, innovations made by teachers include 1) psychosocial assistance; 2) utilization of technology; 3) approach; 4) design varied learning; and 5) development of learning media. Future researchers can examine how the effectiveness of policies and



innovations made by teachers quantitatively so that it become input for stakeholders. What is lacking in this study is the effectiveness of the efforts made by the government and teachers in mitigating learning loss, so it is suggested that further research to examine its effectiveness quantitatively.

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