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Parental Obstacles During Distance Learning Mathematics in Indonesia: A Phenomenology Study

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Abstract: The Coronavirus disease (COVID-19) pandemic has caused an inevitable shift from face-to-face to distance learning, a phenomenon known as panic-gogy. Parents are the main students' companions while studying at home. Although various studies show the constraints in this condition, few employ phenomenology that accurately describes people's experience regarding a situation. Therefore, this study aimed to describe parents' experience during distance learning mathematics using a phenomenology approach. The participants comprised 71 35-50-year-old parents of junior high school students. A Google form with open-ended questions was used as the main instrument in data collection. Data were analyzed using NVivo-12-assisted thematic analysis in coding, while source triangulation was used to strengthen the data trustworthiness. The results showed that students did not learn the content well due to poor explanations by the teacher. Furthermore, they did not study well at home due to signal constraints and quota limitations. This study recommends blended learning by combining limited face-to-face and online learning.

Keywords: *COVID-19, distance learning mathematics, panic-gogy, phenomenology.*

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Introduction

Panic-gogy describes the learning conditions during the Coronavirus disease (COVID-19) pandemic (Kamanetz, 2020). Panic-gogy is the process of understanding the resources and problems that learners face during distance learning (DL) and using that understanding to help educators determine the best learning approach (Engelbrecht, Llinares, et al., 2020). Face-to-face learning has been transformed into distance learning (Clark-Wilson et al., 2020; Le et al., 2021; Marfuah et al., 2022; Pepin, 2021). The classroom, usually busy with student interaction, became a quiet and uninhabited room. Virtual classrooms have emerged on social media, such as WhatsApp, Facebook, and Instagram usually used to laugh (Reflianto et al., 2021; Salehudin et al., 2021). Furthermore, various digital learning platforms, such as Zoom, Google Meet, Moodle, and GeoGebra Classroom provide virtual classrooms to facilitate interaction between educators and learners during DL, including mathematics learning (Cevikbas & Kaiser, 2020; Marfuah et al., 2022; Reimers et al., 2020).

Studies worldwide use various methods to identify the parents' obstacles in distance learning mathematics (DLM). Agaton and Cueto (2021) used a survey with inductive content analysis to examine the experiences of K-12 parents as supervisors, tutors, and temporary teachers during the pandemic in the Philippines. According to the findings of the study, parents considered DL less conducive to learning, student learning outcomes were not satisfactory, and there were difficulties in using and providing technological equipment. Similarly, Demir and Demir (2021) used a survey in Turkey with descriptive statistics to explore parents' opinions regarding DL implementation during the pandemic. Parents in the study of Demir and Demir (2021) revealed that students' learning motivation was low due to internet connection issues. Hamaidi et al. (2021) used a survey to determine the parents' perceptions of elementary and middle school students on implementing DL in Jordan. The study of Hamaidi et al. (2021) indicated that parents are quite satisfied with DL because the government has implemented a variety of supportive measures, including the use of

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multiple education platforms, the allocation of satellite channels for broadcasting educational content, teacher training for DL, and requiring teachers and students to use a variety of digital learning applications.

In contrast, this study used a qualitative approach with phenomenology to describe the experiences of parents of junior high school students regarding DLM. Phenomenology is regarded a useful research strategy in the context of this study since it tries to expose the experiences of participants (parents) regarding a phenomenon, namely DLM (Palacios & Simons, 2021; Stolz, 2020). Parents become participants in this study because they play a significant role in DLM (Gann & Carpenter, 2017). Junior high schools became the study target because the DLM phenomenon is hardly examined at that level (Engelbrecht, Llinares, et al., 2020). Therefore, this study aimed to identify the obstacles faced by parents during DLM. Mathematics teachers are expected to use these obstacles to provide corrective and fundamental solutions in preparing teaching materials (Mailizar et al., 2020; Wijaya et al., 2019). Therefore, the research questions to achieve these goals are:

1. What is the theme of the obstacles that parents experience during DLM?

2. What are the constraints that parents experience during DLM?

Methodology

Research Design

This study used a qualitative approach with a phenomenology design (Breiger, 1995; Creswell & Creswell, 2018; Stolz, 2013) to describe people's life experiences regarding a situation (Palacios & Simons, 2021; Stolz, 2020). The participants comprised of students' parents whose experiences were examined, while the phenomenon investigated was DLM as an impact of the COVID-19 pandemic.

Sample and Data Collection

The study sample comprised 35-50-year-old 71 parents of seventh-grade junior high school students in West Nusa Tenggara Province, Indonesia. The province is highly advanced in the tourism sector and is the host for implementing one of the MotoGP series in 2022 and the World Super Bike (WSB) in 2021. The 71 parents consisted of 57 males and 14 females. Also, 61 parents are entrepreneurs and private employees, while the rest are civil servants, army, or police.

Open-ended questions were used to obtain answers from parents (Brown & Danaher, 2019). Seven experts in mathematics and psychology education validated the questions' content. The experts determined that the questions were valid with a content validity ratio (CVR) value of 1, greater than 0.99 (Lawshe, 1975). As an example, the question asked *"What are the obstacles to learning mathematics that you and your child have encountered as a result of the COVID-19 pandemic?"*

Data were collected online using a Google form and this study enforced ethics during data collection by communicating the objectives to parents without forcing them to respond and promising to keep their identities confidential. Consequently, parents were more willing to answer questions (Esposito, 2012; Roberts & Allen, 2015).

Analyzing of Data

Data were analyzed using thematic analysis to systematically generate, code, and develop themes (Benavides-lahnstein & Ryder, 2019; Pigden & Jegede, 2019). The themes represent the obstacles parents experience during the DLM phenomenon. The analysis began with data familiarization, initial code (IC) determination, theme formation, review, definition, and naming (Finkelstein et al., 2019; Scharp & Sanders, 2018). Two researchers performed thematic analysis, particularly during the review stage, to determine whether all ICs were appropriate and fit into the proper theme. The NVivo-12 software was used to simplify the coding process, audit trail, and member check, making the results credible and dependable (Morrison et al., 2019; Richard & Hemphill, 2018). The software was used because it is simple as well as accepts and presents diverse data (Dalkin et al., 2020; Paulus et al., 2015). Additionally, this study used triangulation of data sources from different parents to strengthen credibility and confirmability (Morrison et al., 2019; Richard & Hemphill, 2018).

Findings / Results

What Is the Theme of the Obstacles that Parents Experience During DLM?

This study used references as an indicator in determining the number of IC. References refer to the number of data sources that make up an IC. The ICs formed were 76, resulting in nine themes with descriptions as shown in Table 1. This means there were nine themes of obstacles that parents experienced during DLM. The number of references in Table 1 differs from the different ICs because several ICs might form multiple themes.

Table 1. Theme Summary

Theme Code	Description	References
T-1	Students do not understand mathematics well.	34
T-2	The teacher does not explain.	11
T-3	Internet and quota constraints.	10
T-4	Students learn less optimally while at home.	9
T-5	Learning is not face-to-face.	4
T-6	Problems and mathematics are full of formulas.	4
T-7	Parents cannot do the math.	1
T-8	The interactions in learning are only one-way.	1
T-9	Parents experienced many, few, and no obstacles.	7

In Table 1, most parents considered *"students do not understand mathematics well"* one of the most significant obstacles during DLM. They assumed that *"the teacher does not explain"* as one of the other obstacles. Other significant obstacles during DLM are *"internet and quota constraints"* and *"students learn less optimally while at home."* The slightest obstacles encountered by only one parent were *"parents cannot do math"* and *"the interactions in learning are only one-way."*

Theme T-1, *"students do not understand mathematics well,"* comprises seven sub-themes described in Table 2. Most parents' problems causing students not to understand math material well were *"students do not understand (without reason from parents)"* and *"learning is conducted online."* T-1-a constituted nine ICs, where the sub-theme showed that parents express obstacles in students lacking understanding of math material during DLM without giving reasons. Examples of parents' answers for T-1-a were *"children do not understand the lesson well," "lessons are hard to understand,"* and *"the child cannot receive or understand the lesson well."*

Table 2. Forming Sub-theme of T-1 ("*Students Do Not Understand Mathematics Well*")

Subtheme Code	Description	References
T-1-a	Students do not understand (without reason from parents).	10
T-1-b	Learning is conducted online.	9
T-1-c	There is no teacher explanation.	4
T-1-d	Parents cannot do or explain math well.	3
T-1-e	Students experience signal problems and internet quota limitations.	3
T-1-f	Mathematics is full of formulas and calculations.	2
T1-1-g	Students lack enthusiasm for learning because the learning environment is not supportive. There are no discussion partners and only rely on Google for answers	3

What Are the Constraints that Parents Experience During DLM?

T-1-b was identical to T-5, meaning that online learning causes students not to understand the mathematics material studied during DLM. This sub-theme was formed from nine ICs described in Table 3.

Table 3. Description of the ICs that Formed T-1-b ("Learning Is Done Online")

IC	Description	References
IC-11	Children do not understand because they rarely interact face-to-face with the math teacher.	1
IC-12	Children hardly understand the explanation through the media.	1
IC-13	Children do not understand the lesson because it is not face-to-face.	1
IC-14	Children are not familiar with online explanations.	1
IC-15	Children have difficulty understanding online lessons.	1
IC-16	Children do not understand online learning.	1
IC-17	Most formulas are poorly understood because they are explained online, making it difficult for students to ask questions directly or receive direct answers.	1
IC-18	Children do not understand the problem because they do not meet face to face.	1
IC-19	The difficulty of learning and understanding online math lessons.	1

T-1-c was formed from 4 ICs, referring to students that do not understand mathematics due to lack of teacher explanation. Based on this description, the sub-themes T-1-c are identical to the T2 themes. Table 4 shows the complete description of the ICs making up the T-1-c sub-theme.

Table 4. Description of the ICs that Formed T-1-c ("The Explanation Given by the Teacher Tends to be Lacking")

IC	Description	References
IC-20	Children have difficulty understanding the material because it is not explained directly.	1
IC-21	Children face constraints because they do not understand the lessons given. Mathematics lessons cannot be given without direct teacher explanation.	1
IC-22	Children have difficulty in learning mathematics due to a lack of explanations.	1
IC-23	There is no money to buy quota, and children do not understand the material because it is not explained directly.	1

The parents' lack of mathematics understanding made the students not understand mathematics well, as described in the sub-theme T-1-d. Parents could not explain the material well when students faced obstacles in learning. The description of this sub-theme is similar to the T-7 theme. The sub-themes or themes were consistently experienced by parents, as described in Table 5.

Table 5. Description of the ICs that Formed T-1-d ("Parents Cannot Do and Explain Math Well")

IC	Description	References
IC-24	Children do not understand the poor explanations given by parents.	1
IC-25	Parents and students do not understand.	1
IC-26	Parents are not as good as teachers that understand learning materials.	1

Signal problems and limited internet quotas made students not understand mathematics during DLM. The code for this sub-theme is T-1-e, which is similar to T-3. Signal constraints and internet quotas are an obstacle for parents during DLM. Table 6 describes the ICs forming the sub-theme.

*Table 6. Description of the ICs that Formed T-1-*e *("Students Experience Signal Problems and Limited Internet Quota")*

IC	Description	References
IC-27	There is no money to buy quota, and children do not understand the material because it is not explained directly.	1
IC-28	Sometimes it is difficult for children to understand due to lack of signal at home.	1
IC-29	Signal interference makes it difficult for children to understand oral explanations.	1

The sub-theme T-1-f, *"mathematics is full of formulas and calculations,"* was formed by 2 ICs. This sub-theme was identical to T-6, meaning it is an obstacle for parents. Table 7 describes the ICs that formed the sub-themes. The T-1-g subtheme, "*students lack enthusiasm for learning because the learning environment is not supportive,"* is formed by 3 ICs. An example of parents' answer was, *"My child has a hard time learning math independently, and the environment affects his performance."*

Table 7. Description of the ICs that Formed T-1-f ("Mathematics Is Full of Formulas and Calculations")

IC	Description	References
IC-30	Children do not understand calculations.	1
IC-31	Formula understanding.	1

The T-2 theme "*the teacher does not explain,*" was formed by 11 ICs. The IC that formed the theme is the response of parents that the teacher did not explain. Table 8 describes the ICs that formed T-2.

T-3 refers to *"internet and quota constraints"* because the ICs that formed the theme relates to parents' response, which considers internet signal and quota limitations as obstacles during DLM. Table 9 describes the ICs that formed T-3. Furthermore, T-4, *"students learn less optimally while at home,"* comprises nine 9 ICs regarding learning independence, students' mental or psychology and reliance on Google, lack of teaching materials, and parents' inability to help overcome learning barriers during DLM.

Table 8. Description of the ICs that Formed T-2 ("The Teacher Does Not Explain")

IC	Description	References
IC-23	There is no money to buy quota, and children do not understand the material because it is not explained directly.	1
IC-35	Lack of teacher explanation.	1
IC-36	Explanation by chat and virtual is slow compared to oral.	1
IC-37	There are many obstacles, and children do not understand without direct explanation.	1
IC-38	Children do not accept the teacher's information.	1
IC-39	Children cannot do assignments without explanations and examples because parents do not know how to.	1
IC-40	Lack of material explanation.	1
IC-41	There is no explanation of the mathematics learning material.	1
IC-42	Students experience difficulty in learning mathematics due to a lack of explanation.	1
IC-43	There is no explanation and elaboration in solving the problem.	1
IC-44	Children are frustrated because the questions have not been studied or explained.	1

Table 9. Description of the ICs that Formed T-3 ("Internet and Quota Constraints")

IC	Description	References
IC-28	Lack of signal at home sometimes makes children not understand.	1
IC-29	Signal interference makes the children not understand oral explanation.	1
IC-45	Internet Network.	1
IC-46	The signal is sometimes slow due to rains.	1
IC-47	Signal interference.	1
IC-23	There is no money to buy quota, and children do not understand the material because it is not explained directly.	1
IC-48	Explanations are sometimes not optimal, and the learning quota is not used maximally, limiting access to large files.	1
IC-49	Less quota.	1
IC-50	Quota problem.	1
IC-51	Difficulty regarding quotas.	1

Table 10 describes the ICs that formed T-4. The IC-60 description shows that one obstacle during DLM is that parents cannot do mathematics and help students solve problems. The IC-60 is also related to the T-7 theme, *"parents cannot do the math."*

Table 10. Description of the ICs that Formed T-4 ("Students Learn Less Optimally While at Home")

IC	Description	References
IC-52	Children have difficulty learning independently at home.	1
IC-53	They wake up late at 9.	1
IC-54	Children rarely study.	1
IC-55	Children find it difficult to study at home.	1
IC-56	Bored child.	1
IC-57	Children lack concentration in online lessons because mathematics formulas should be taught, but the online explanation is difficult.	1
IC-58	Learning is not as desired, incomplete.	1
IC-59	The child's brain and results are not pure because they always look for results on google. Their brains do not run because they expect quick and instant results.	1
IC-60	Children learn less optimally because parents cannot help solve obstacles.	1

Concerning T-5, online learning was an obstacle to parents. This theme was formed from the four ICs described in Table 11.

Table 11. Description of the ICs that Make up T-5 ("Learning Is Not Face-to-Face")

IC	Description	References
IC-61	The child does not meet the teacher face-to-face.	1
IC-62	Children can not ask questions directly.	1
IC-63	Children never learn face-to-face.	1
IC-64	Children lack concentration in online lessons because mathematics contains formulas, though the online explanation is a bit difficult.	1

In T-6, parents considered story problems and formulas in mathematics an obstacle during DLM. This theme was formed by the four ICs described in Table 12.

Table 12. Description of the ICs that Make up T-6 ("Problems and Mathematics Are Full of Formulas")

IC	Description	References
IC-29	Signal interference makes oral explanation difficult to understand.	1
IC-65	About the story.	1
IC-66	Children are less concentrated in online lessons because mathematics has the formula to be taught, but online teaching is difficult.	1
IC-67	Solution system on the formula.	1

The IC descriptions for themes T-7 and T-8 in Table 13 show that parents thought they must understand mathematics to explain learning problems to children. The interactions were one-way, with no questions and answers between teachers and students during DLM.

Table 13. Description of the ICs that Formed T-7 ("Parents Cannot Do the Math") and T-8 ("The Interactions in Learning Are One-way")

IC	Description	References
IC-68	Parents must understand the lesson and explain with examples easy for the child to understand. This requires substantive knowledge and time for a private worker.	1
IC-69	Students cannot ask questions.	1

T-9 relates to the parent's explanation of the obstacle. Parents were categorized into those that experienced many, few, and no obstacles during DLM. Table 14 describes the ICs making up the T-9.

Table 14. Description of the ICs that Make up T-9 ("Parents Experienced Many, Few, and No Obstacles")

IC	Description	References
IC-70	There is none.	1
IC-71	Great.	1
IC-72	There are no significant obstacles because there are adequate supporting facilities such as cellphones and laptops with a WiFi network.	1
IC-73	The child has a little trouble.	1
IC-74	Many difficulties.	1
IC-75	Feeling Difficult.	1
IC-76	Difficult.	1

The previous description showed nine themes during DLM. However, not all obstacles expressed by parents are relevant or considered difficulties for students because some ICs form general descriptions. For instance, most ICs in T-9 do not describe students' experiences. Therefore, T-9 was eliminated, resulting in only eight obstacles that parents experienced during DLM:

1. Students did not understand math material well.
2. Teachers did not explain.
3. Internet and quota constraints.
4. Students studied less than optimally at home.
5. Learning is not face-to-face.
6. Problems and mathematics are full of formulas.
7. Parents cannot do mathematics.
8. The interactions in learning are one-way.

Discussion

Parents experienced eight obstacles during DLM, as discussed in the following section.

Students Did Not Understand Math Material Well

This is the most significant struggle parents face during DLM. The finding supports Frolova et al. (2021), which showed that students' material understanding decreased in Russia, and their interest in learning declined during DLM. Özüdoğru (2021) found similar results. In Turkey, students experience decreased cognitive and problem-solving abilities and attitudes towards mathematics during DLM. Additionally, Armah et al. (2021) stated that the performance of prospective mathematics teacher students in Ghana was less than average during DLM.

This study found that students did not understand mathematics material during DLM due to several factors. The factors include online learning, lack of teacher explanation, parents' inability to help students solve problems, and signal interference and internet quota limitations. Furthermore, mathematics was difficult to teach online; and students were less enthusiastic studying at home due to a lack of discussion partners and reliance on Google for answers. These results support previous studies that students and parents experienced several obstacles during DLM (Agaton & Cueto, 2021; Akar & Erden, 2021; Chirinda et al., 2021; Soloveva et al., 2020; Van-Lancker & Parolin, 2020; Zhou et al., 2020). The obstacles include poor internet signal, insufficient internet quota, and students' lack of interest in learning. At home, the material becomes tricky when explained online. Parents cannot optimally help children in learning because they do not understand. Also, there is a lack of teachers' and students' understanding in operating online learning platforms, and no teaching modules are devoted to DL (Hadriana et al., 2021; Mailizar et al., 2020; Megatsari et al., 2020).

Teachers Did Not Explain

Parents feel that teachers do not provide explanations to students during DLM. Mathematics teachers hardly provide illustrations or analogies for students to learn and understand easily. These results support Bot (2021), which showed that mathematics teachers in Nigeria hardly make sketches, analogies, and accurate representations of learning content. Moreover, Chirinda et al. (2021) found that students in South Africa receive less explanation from the teacher about the mathematics material learned during DLM. The students' lack of internet quota and the inability to make video calls with math teachers limited the teacher's explanation. Barlovits et al. (2021) showed that mathematics teachers in Spain and Germany rarely provide instructions or feedback to students during DLM. The interaction between mathematics teachers and students is minimal due to devices limitations, such as smartphones or laptops. In line with this, Kalogeropoulos et al. (2021) found that students in Australia could not get direct instructions or assistance from mathematics teachers during DLM.

Internet and Quota Constraints

These two obstacles are critical to online learning's success because of DLM experiences problems with no internet quota. The results support various studies on learning during the COVID-19 pandemic. The studies found that signal interference and internet quota limitations are the main obstacles during DL (Akar & Erden, 2021; Chirinda et al., 2021; Soloveva et al., 2020; Van-Lancker & Parolin, 2020; Zhou et al., 2020). In this case, parents' financial constraints make students experience problems of quota limitation (Hadriana et al., 2021). This is because of the increased unemployment due to the COVID-19 pandemic (Engelbrecht, Borba, et al., 2020).

Students Studied Less Optimally at Home

Several factors contribute to students' studying less optimally at home. These include irregular study schedules, children's boredom, lack of concentration, insufficient access to learning material, and reliance on search engines for answers. The findings support previous studies that students are unfocused, lack concentration, are distracted by activities around the house, and do not feel the learning atmosphere during DLM (Demir & Demir, 2021; Özüdoğru, 2021). Also, Kalogeropoulos et al. (2021) found that students felt less interested, bored, and less happy studying at home during DLM.

Learning Is Not Face-to-face.

Some parents view DLM or online learning as an obstacle. These results support several previous studies that DLM causes new problems in learning (Akar & Erden, 2021; Chirinda et al., 2021; Hadriana et al., 2021; Mailizar et al., 2020; Megatsari et al., 2020; Soloveva et al., 2020; Van-Lancker & Parolin, 2020; Zhou et al., 2020). For instance, mathematics teachers lack knowledge and skills in implementing online learning, and there are limited supporting facilities and infrastructure. Teachers are forced to develop teaching materials according to the current situation and conditions (Chirinda et al., 2021; Engelbrecht, Borba, et al., 2020). According to Kalogeropoulos et al. (2021), mathematics teachers expect learning to be at least 20% online and 80% face-to-face.

Mathematics Problems Are Full of Formulas

Mathematics questions full of formulas become an obstacle for parents during DLM and face-to-face learning. This obstacle has become a social myth that mathematics is an arithmetic subject identical to formulas challenging for students to understand (Sarama & Clements, 2009). Therefore, Tall (2004, 2006, 2008) suggested that face-to-face and DLM learning consider students' mathematics learning levels. They must use real-world contexts or everyday life as a starting point in learning. Teachers use various illustrative models to help students construct mathematical concepts, an approach known as proceptual-symbolic. This enables students to find abstract or axiomatic-formal mathematical concepts.

Parents Cannot Do Mathematics

Parents unable to do math cannot help when students experience learning obstacles. These results support previous studies that parents could not help their children during DLM due to their low educational backgrounds (Akar & Erden, 2021; Kalogeropoulos et al., 2021). Parents are not mathematics teachers, meaning they cannot help ideally. Additionally, they cannot optimally accompany their children during DLM because some have more than one child of school age, and many only have one smartphone.

The Interactions in Learning Are One-way

Previous problems were caused by minimal interaction between mathematics teachers and students during DLM. These results support Özüdoğru (2021), which found that teachers could not provide feedback and communicate well with students during DL due to delayed response. For instance, asynchronous learning involves students responding in the afternoon when the teacher delivers material in the morning.

This finding is in line with Barlovits et al. (2021) and Chirinda et al. (2021). Students cannot conduct intensive question and answer sessions with the mathematics teacher. The teacher's feedback is not optimal because some mathematics learning activities require correcting the students' answers manually. This requires mathematics teachers to print student assignments, while not all teachers have printers. Consequently, the feedback provided by mathematics teachers is limited and not optimal (Akar & Erden, 2021; Chirinda et al., 2021; Davis et al., 2019; Kalogeropoulos et al., 2021). The lack of feedback then encourages parents to become more involved in their children's at-home distance learning (Tal et al., 2022).

Conclusion

Parents experienced at least eight obstacles during DLM. The main obstacle is that *"students did not understand math material well."* This obstacle was caused by *"the teacher did not explain," "internet and quota constraints," "students studied less optimally at home,"* and *"learning is not face-to-face."* Other causes were *"mathematics problems are full of formulas," "parents cannot do mathematics,"* and *"the interactions in learning are one-way."*

Mathematics teachers should consider this obstacle when preparing didactic designs or teaching materials during DLM. The school should also use these results to make policies related to DL by ensuring students have supporting facilities, such as smartphones or laptops, and an adequate internet quota. When these two conditions are not fulfilled, the school should conduct home visits to students not experiencing device limitations and internet quotas.

Various solutions are offered to minimize these obstacles, such as blended learning. The learning conducted during the COVID-19 pandemic must combine limited face-to-face with online learning. Furthermore, digital platforms, such as Zoom and Google Meet, could be an alternative for teachers during online learning. Live streaming or recording online learning, as well as making and uploading videos on YouTube, is another alternative to ensure students learn independently. Teachers also can use mathematics interactive online courseware such as GeoGebra and Desmos to deliver mathematics content constructively.

Recommendations

This study has disclosed various obstacles during DLM. The results are expected to assist in compiling didactic design or teaching materials. Further studies should prepare didactic designs or teaching materials for DLM using constraint information to help minimize these obstacles. Furthermore, it is necessary to examine government or school policies related to parents' experience during DLM.

Blended learning is an alternative solution for conducting learning during the COVID-19 pandemic. Mathematics teachers should implement limited face-to-face and online learning to maintain the quality of education. Therefore, further studies should identify the weaknesses and strengths of implementing blended learning in schools. Future studies should also examine the effectiveness of blended learning associated with outcomes or students' mathematical competence.

Limitations

This study used parents as participants with the triangulation in data analysis. It only used Google forms to submit open-ended questions. Therefore, follow-up interviews should be conducted face-to-face with several samples of parents to obtain more in-depth information. This activity was not carried out due to limited funds and could not compensate parents meant for follow-up interviews.

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Authorship Contribution Statement

Isnawan: Conceptualization, design, data acquisition, analysis, writing, drafting manuscript. Suryadi: Editing/reviewing, supervision, critical revision of manuscript, securing funding, final approval. Turmudi: Editing/reviewing, supervision, critical revision of manuscript, final approval. Marfuah: Drafting manuscript, admin.

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