

Parents Taking on the Teachers' Roles in Online Learning: A Case Study

Peran Orangtua sebagai Pengganti Guru dalam Pembelajaran Online: Sebuah Studi Kasus

Darman Fauzan Dhahir¹⁾, Mukhlis Amin²⁾, Herman³⁾, Bahrawi⁴⁾, Yayat Dendy Hadiyat⁵⁾, Tasmil⁶⁾, Nur Alam⁷⁾, Emilsyah Nur⁸⁾

1,2,3,4,5,6,7,8Balai Besar Pengkajian dan Pengembangan Komunikasi dan Informatika Makassar 1,2,3,4,5,6,7,8Jl. Prof. Dr. Abdurrahman Basalamah II No.25, Makassar, 90123, Telp/Fax: 0411-4460084

E-mail: darm007@kominfo.go.id¹⁾, mukhlis.amin@kominfo.go.id²⁾, herman@kominfo.go.id³⁾, bahrawi@kominfo.go.id⁴⁾, yayat.dh@gmail.com⁵⁾, tasmil@kominfo.go.id⁶⁾, nur.alam@kominfo.go.id⁷⁾, emilsyah.nur@kominfo.go.id⁸⁾

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Abstract – The Covid-19 pandemic forces education stakeholders to implement the online learning policy. They face challenges in Science, Technology, and Mathematics (STM) educations that are the most difficult subjects. Responding to the policy, parents may take on the role of teachers. This study explores the experiences of parents that take on the role of teachers, particularly in STM. The study uses a descriptive qualitative approach. Data were obtained by interviewing several parents of students who were selected by convenience sampling method. Data were analyzed using Miles & Huberman's interactive model regarding the grounded theory for concluding. It found that parents take the teacher's role as the resource provider, the supporter & learning facilitator, the mentor, and the personal model. Challenges were both technical and non-technical forms. Some of them do not master the subject matter of their children, making it difficult to provide support and take the role of a teacher. Some of them took the place of their children to work on assignments from school. Some others simply provide scaffolding to their children. Some of them use the internet to understand the subject matters or find answers, but some others could not. This has implications on how parents should be prepared in implementing distance learning policies, especially in STM fields of study.

Keywords: educational communication, online learning, parents' support, teachers' roles, STM education.

Abstract — Pandemi Covid-19 memaksa pemangku kepentingan pendidikan menerapkan kebijakan pembelajaran online. Mereka menghadapi tantangan dalam pendidikan Sains, Teknologi, dan Matematika (STM) yang merupakan mata pelajaran tersulit. Menanggapi kebijakan tersebut, orang tua dapat mengambil peran sebagai guru. Studi ini mengeksplorasi pengalaman orang tua yang berperan sebagai guru, khususnya di STM. Penelitian ini menggunakan pendekatan kualitatif deskriptif. Data diperoleh dengan mewawancarai beberapa orang tua siswa yang dipilih dengan metode convenience sampling. Data dianalisis menggunakan model interaktif Miles & Huberman mengenai grounded theory. Ditemukan bahwa orang tua mengambil peran guru sebagai penyedia sumber daya, pendukung & fasilitator pembelajaran, mentor, dan model pribadi. Terdapat tantangan, baik teknis maupun non-teknis. Beberapa dari mereka tidak menguasai materi pelajaran anak-anaknya, sehingga sulit untuk memberikan dukungan dan mengambil peran sebagai guru. Beberapa yang lain menggantikan anak-anaknya untuk mengerjakan tugas dari sekolah. Ada pula yang hanya menyediakan scaffolding untuk anak-anak mereka. Beberapa dari mereka menggunakan internet untuk memahami materi pelajaran atau mencari jawaban, tetapi beberapa lainnya tidak bisa. Hal ini berimplikasi pada bagaimana seharusnya orang tua mempersiapkan diri dalam menerapkan kebijakan pembelajaran jarak jauh khususnya di bidang studi STM.

Keywords: komunikasi pendidikan, pembelajaran online, dukungan orang tua, peran guru, pendidikan STM

INTRODUCTION

The Covid-19 outbreak in 2020 has disturbed the world of education. Schools that used to only apply face-to-face teaching and learning methods are suddenly forced to turn it into online distance learning for the safety of students, teachers, parents, and society. Those who previously refused, now have no other choice but to

accept the modern mode of pedagogy. Not a few teachers face obstacles when teaching online, including difficulties in operating online learning applications, how to reduce learning disruptions for students, how to ensure increased student knowledge and abilities, how to maximize student participation, how they assess students, etc (Dhawan, 2020).

The sudden shift also challenges students and automatically their parents. When studying online, some students experience technical problems, feel a lack of togetherness, time constraints, difficulty in understanding online explanations, feel bored, are lazy, and cannot stand the temptation of the internet (Dhahir, 2020; Song et al., 2004). On the other hand, parents always hope their children will get good learning outcomes and grades (Froiland et al., 2013). Some of them are involved in their children's learning activities, even if some studies report different results of it, some are positive and some are negative on student's achievement (Reed et al., 2000; Wang et al., 2014; Zhan, 2006). Dempsey and Sandler's theory about parental involvement in children's education has been proven empirically. Parents are motivated to get involved because they feel they have to contribute to their child's education. They believe that their involvement has a positive effect on their children's educational achievement. Besides, the existence of communications, and requests invitations. involvement from schools added to their confidence that their involvement was expected (Reed et al., 2000). Thus, parents who are worried about the problems their children face in the online learning policy might make efforts to help them solve them.

The challenges both the teachers and students face are in pairs. Teachers are concerned about learning disruptions for students, while students are facing the problem of boredom, and the temptation to have fun on the internet. Teachers have struggled as creatively as possible in presenting the subject so that the students understand, it turns out that the students still don't understand (Dhahir, 2020; Dhawan, 2020; Song et al., 2004). The challenges then become the parents' too. This is where parents may take part in the teacher's role. It has long been found that middle-class parents in some places took on the role of teachers when interacting with their children (Rogoff et al., 1993). They may provide the scaffolding to help students to receive lessons well, to understand them, and to be able to do assignments, homework, or exams (Anderson & Minke, 2007; Baranovich et al., 2019; Pratt et al., 1992). The next challenge for parents is the variety of their profiles. They have various education majors and levels (Eryanto & Swaramarinda, 2013; Kusaeri et al., 2018; Pratiwi, 2017; Zhan, 2006) whereas the subject matters for basic schools (1st to 12th grade) students are currently multi-disciplinary (in Indonesia), such as science, social studies, mathematics, Indonesian, religious studies, art, physical and health education, ICT, English, etc (Munifah et al., 2019). Each subject has its level of difficulty in teaching and/or studying it. Some subjects, including Mathematics, Science, and Technology, are even considered to be the most difficult ones (Andriani et al., 2017; Aydin et al., 2014; Basturk, 2010; Şahin et al., 2014). Meanwhile, teachers, especially the new ones, will find the difference between expectations and reality. Even if they have prepared carefully, there will always be surprises that change the class behavior (Galvin, 2013). From a technology point of view, parents also face challenges. The current students are generation Z and Alpha who are the natives of digital technology, while parents, at best, are only generation Y who are digital immigrants or maybe elder: Generation X. The students' generations are much more familiar with Information and Communication Technology (ICT) since childhood, so most of the activities they do are related to cyberspace (Putra, 2017). Some parents admit that they know less about ICT. They believe that their children are better (Dhahir, 2018).

These phenomena were the reasons for the current study. It intends to describe how parents take on the role of the teacher to help children students to achieve their learning goals, particularly in STM subject matter fields. It reveals whether their diverse backgrounds of educations and ICT literacy contribute to how they take the role of the teachers.

Previous studies have discussed the role of parents in children's education. It was found that parental scaffolding behavior had significant associations with children's academic performance competence(Mattanah et al., 2005). In line with that, a study argued that parents' and teachers' lack of selfconfidence in completing math tasks might prove to be a significant influence on children's mathematics attitudes. Thus, parents and teachers must have a good attitude in advance to this subject, so children to be positive too (Gunderson et al., 2012). Also, the motivations parents give have positive effects on children. As teachers at home, parents can stimulate children by praising, and rewarding them for the way they do assignments so that they are determined to study regularly (Ceka & Murati, 2016). It has been revealed that parents provide lots of support for difficult tasks, especially mathematics, and to the less skilled children (Pratt et al., 1992).

Table 1. Profiles of the informants

No	Name	Gender	Education Level	Education Major	Generation	ICT Literacy	No. of Children	Children's grade
I1	Ambo	M	undergraduate	electronics	X	medium	1	11
i2	Ifa	F	middle school		Y	low	1	1
i3	Ady	M	graduate	management	X	medium	6	2, 3, 6, 8, 10, 12
I4	Rida	F	undergraduate	agriculture	Y	low	1	2
15	Rama	M	graduate	social	Y	medium	4	2, 6, 8, 9
i6	Usy	F	high school	social	Y	low	1	2
i7	Vina	F	high school	social	Y	medium	1	1
i8	Ana	F	undergraduate	management	Y	medium	2	3, 6
19	Sahra	F	undergraduate	management	X	low	3	2, 3, 6
i10	Kahar	M	high school	electronics	X	low	1	8
i11	Waty	F	undergraduate	management	X	low	2	1, 5
i12	Ira	F	high school	social	X	low	2	3, 5
I13	Budi	M	undergraduate	management	Y	medium	2	3, 6
i14	Ita	f	middle school	-	Y	low	1	2
i15	Hasna	f	high school	social	X	low	3	3, 6, 8

In Malaysia, for mathematics, mothers were found sitting next to preschoolers most of the time. They tried to diagnose their children's level understanding by observing their behavior. Some of the mothers' behaviors were revealed, both verbal and non-verbal. They found giving answers, repeating, telling stories, doing it for children, nodding, and providing tools. Due to their busy schedule, tended to apply the giving answers, doing it for children, and providing tools so that their children can answer correctly (Baranovich et al., 2019). Besides, the characters of parents have associations with children's education (Mermelshtine, 2017). A study indicated Americans and Chinese are different in implementing instructional scaffolding (Hou et al., 2020). Another one indicated that a mother's education level (which is the same or higher as her child's) serves as a significant moderator between academic achievement and educational satisfaction of adolescent students (Crede et al., 2015)

METHODS

The current study uses the descriptive-qualitative approach. It fits to use for obtaining a direct description of the phenomena (Sandelowski, 2000). It does not mean that a descriptive qualitative study does not require interpretation of the data, it should still be (Sandelowski, 2010; Stanley, 2014). We interviewed 15 informants, whose detailed profiles are shown in table 1, in Makassar City, Indonesia in September 2020 to obtain the data. The interviews occurred face-to-face or online. They were selected using the Convenience-Sampling technique. When applying this method, the selected samples are available and accessible at the given moment (Baxter et al., 2015; Edgar & Manz,

2017). Not neglecting the quality of the study, we considered using this method due to the current pandemic situation that limits the space for human movement where they have to do physical distancing. The information gathered was confirming whether parents took the role of the teacher in helping children to achieve STM learning goals, and how they did it if so. The challenges they faced and the ways they resolved them were also explored.

Teachers take on a variety of roles to support the success of schools and students. Based on empirical studies, Harrison & Killion (Killion & Harrison, 2017) outlined ten leader teacher roles that can contribute to the success of the goals, including resource provider, instructional specialist, curriculum specialist, classroom supporter, learning facilitator, mentor, school leader, data coach, the catalyst for change, and learner. Meanwhile, from the transactional perspective, the primary roles that may have to be performed by all those involved in the class, whether teachers, students, or significant others, are providing content expertise, providing learning management, providing evaluative feedback, providing socialization, and personal models (Galvin, 2013). Although it is not binding, these theories' perspectives are the path of the discussion.

Then the data is analyzed according to Miles & Huberman's interactive model which consists of data collection, data reduction, data display, and conclusions (drawing or verifying). The characteristic of this method is that the data that has been collected might be directly displayed and drawn as a conclusion, or it can also be reduced first and then concluded. A conclusion obtained from the data display and/or data reduction process is not necessarily the final one, but it is possible that, if necessary, the researcher should redo

all the analysis previous processes. (Miles et al., 2013; Miles & Huberman, 1984). The current study conclusions are drawn based on grounded theory, a method that uses a systematic set of procedures to develop a theory about a phenomenon inductively. This method starts with a vague statement and finally results in a theory based on various data (Corbin & Strauss, 2008).

RESULTS AND DISCUSSION

The resources provider

As well as being the source of what students should know, teachers are the ones who most need to know how to provide a variety of resources, including websites, articles, books, instructional materials, and other resources to ensure peers or students are informed of what they need to know (Killion & Harrison, 2017).

It was found from the data obtained that, except Rama, all informants only provided (employing the school giving, buying, or hard-copying) textbooks recommended by the schoolteacher. Rama preferred to first search the textbook from the internet if one was available than to buy or copy. Besides, he often downloaded articles containing formulas and examples of math and/or physics calculations, especially those that fit the curriculums of his children who were in the 2nd, 6th, 8th, and 9th-grade levels. He reasoned that calculation lessons would produce arbitrary answers, unlike biology or others whose answers are always just the same, and found on the internet easily. He acknowledged that his children considered mathematics assignments as the most difficult. Therefore he prepared himself to answer his children's. He also taught his children how to find information on the internet. Meanwhile, Sahra stated that looking for subject matter on the internet is tiring. According to her, providing what the schoolteacher suggested was sufficient. She argued that the schoolteacher would convey all the children needed in learning. These findings indicate that parents take on the role of teachers as the resources provider in ways that depend on their respective characteristics.

The supporter & learning facilitator

A teacher has the duty of looking for and implementing new ideas for better results (Killion & Harrison, 2017), besides providing support, both physical and non-physical, whenever students need it. The study resulted that the parents supporting their children's learning by providing textbooks, stationery, ruler, computer or smartphone, internet network, and even air-conditioned rooms. Besides the things, Rama also complemented the supports with the

additional reading material (e.g. a collection of math and physics formulas), tutorial videos, scientific videos, selfmade hint notes, and simple teaching aids. He also answered the questions of his children that he thought needed to be answered or lead them to find the answers from the textbooks or the internet. Ana, Budi, Ambo, and Ady also led children to go the textbooks or the internet, while Kahar, Sahra, Waty, and Ira said that if their children asked a question they could not answer, they would lead them to get the answers from the textbooks (by their selves or together with parents).

All the parents reported that children were sometimes lazy, especially when learning STM. The children reasoned that they found the material or task difficult to understand or work on. Besides, they were also often found to be spending too much time having fun on the internet, to the point of not doing assignments. To overcome this, besides providing scaffoldings, parents promised them rewards for doing work, or punishment if they did not. They also reported using to reprimand and scold when they found their children neglecting assignments. They assume it as a kind of support for children's education.

Besides, Ambo told that occasionally he forcedly did his son's assignments, especially when the deadline for submitting was nearly up whereas they were still not finished. Rama, Ita, Rida, Ira, Ifa, and Vina did the same. They told the answer if the support they provided had not succeeded in making children understand the subject matter and be able to complete assignments. This act violates ethics. After all, as a teacher at home, parents also should direct the students to do the right things in any circumstances, not only helping them to answer correctly (Simpson, 2018).

The mentor

The role of a mentor is very important for students, as they achieve the competencies required of a practitioner (No Title, n.d.). Mentoring has several factors, including personal attributes, pedagogical knowledge, modeling, and feedback (Hudson, 2007). The study reveals that parents became mentors in the implementation of the online learning policy. All informants declared that mathematics was the subject that most mentoring required when children were studying or working on it. Their opinion is in line with previous research which found that although children needed assistance both in learning mathematics and science, basic mathematics was needed more (Hudson, 2007).

They vary in their mentoring. No informants who were parents of children in grade 3rd or below found it difficult to master the mathematics and science materials of their

children. Unfortunately, not all of them easily communicate the lesson materials to make them understand. "I don't understand whether I mischarged him, or my kid is really weak in that (mathematics) subject," Rida, Usy, Waty, and Hasna said in conformity. Meanwhile, those whose children are in grade 5 or above, sometimes did not master the mathematics curriculum that was being taught to their children. When facing this challenge, some parents, such as Ana, Budi, Ambo, and Ady, usually directed their children to look for problem-solving in textbooks or the internet while accompanying them or sometimes being involved in analyzing. Likewise, Kahar, Sahra, Waty, and Ira, directed their children to work with them using the textbooks. The four of them admitted that their children were more skillful in ICT. The proof, without directing their children to look for answers from the internet, their children had done it themselves. Besides, Rama reported taking the time to make hint-notes materials for his children's studies. The goal was that if at any time the children have difficulty with the subject matter, maybe it could help. Sometimes he also created answer keys, complete with systematic explanations of how to do tasks. "It is usually kept as the ultimate weapon which is only unlocked if the children really cannot understand and work on it," said Rama. An investigation revealed that he doing this because at certain times he could not accompany his children to study due to his busy schedule.

In science and ICT lessons, parents not as frequent nor as intent as in mathematics did mentor. They occasionally checked student work results in these fields. When students had difficulty doing assignments, similar to actions in mathematics lessons, parents would direct them to read textbooks or search the internet.

The learner

Being a learner is one of the important roles of a teacher. A teacher must always grow in life and never claim that they know everything, so the challenges he faces every day help them grow even better (Loewenberg Ball & Forzani, 2009). As discussed in previous sections, the study shows that even if parents sometimes did not master the lessons, they still tried to mentor their children. A lot of mentors indeed still need further education to set clear and attainable goals so that mentoring in certain subjects such as science and mathematics becomes more purposeful (Hudson, 2007). Moreover, these parents who suddenly became mentors may need a grand-mentor to train them to be good mentors, or at least they should learn from their own teaching experience or that of others. Besides, lack of resources (materials and examples), and limited time and effort to

prepare lessons are two of the main factors that make teaching science more difficult (Appleton & Kindt, 1999).

Rama claimed to compile the collection of math and physics formulas, make hint-notes, and download video tutorials because he recalled his own experience that during his studies, they were useful in helping him to understand the lesson more effectively. Of course, in this effort, he studied the subject matters in advance. He admitted, his memory was refreshed, he even gained new knowledge because of doing these. Other parents, like Ana, Budi, Ambo, Ady, Kahar, Sahra, Waty, and Ira also studied their children's lesson materials when accompanying them to study, especially when the children had difficulties. Those are all the points that the informants learned up to. They have not thought that far to study curriculum, pedagogical techniques, teaching management, class-leading, and evaluation deeply with the reason they have entrusted them to the real teacher: the school teachers.

The personal model

A teacher is normally judged (by students) on how well his/her intelligence is seen. Students build a persona for their instructor from the first meeting (Appleton & Kindt, 1999). Students reject incompetent people to teach them. For that, teachers need to build personal branding so that it becomes a model for students. Kahar, Sahra, Waty, and Ira reported that their children felt more skilled at using the internet (and they confirmed it) so that children did not appreciate parental directions regarding the use of the internet, both for ICT lessons, as well as science and mathematics. Some others feel trusted by their children because they have proven successful in getting the information they need from the internet.

Almost all informants who are parents of students from middle and high schools reported that in all subjects (especially mathematics and science), children who scored poorly from their parents' mentoring were traumatized to be mentored by their parents again. This is a challenge for parents, who still want to be there because they don't want their children not to do assignments. However, usually, after that happened, they would reduce the depth of involvement in the technical lessons, until things gradually recovered.

CONCLUSION

The current study reveals that in the distance-online learning policy implementation, parents are forced to become teachers, although they are not really professional in this field. They must take on several roles of school teachers for the proper running of the school curriculum, including the subject that is considered the most difficult, STM. They become the mouthpiece of the teacher at school. At least parents take the teacher's role as the resources provider, the supporter & learning facilitator, the mentor, and the personal model.

Parents do not appear to face serious challenges in providing learning resources, because they are provided by schools. Those who want to add, can get them from the internet or create their own. This finding confirms previous research that claimed that people do provide resources as a form of parental concern for children (Supriyati, 2018). Parents also role as supporters and learning facilitators. They provide both physical and non-physical fulfilments to support their children's education. The physical ones do not face significant challenges, but the non-physical ones have. Children give up and become lazy or neglect their lessons by wasting their learning time having fun on the internet for the reason that it is difficult to understand and do STM tasks. To overcome this situation parents employ instructional communication, such as promises on rewards & punishments, or get angry (Sari et al., 2016) to make the children leave their negative behavior. It means that they put into practice the findings of a previous study that propose parents' stimulation on children by praising, and rewarding them for the way they do assignments is a determination on them to study regularly (Ceka & Murati, 2016).

In carrying out a mentoring role, some parents sometimes have difficulty in communicating lessons to their children, even when they understand the lessons. However, if they are not both proficient in a subject matter, they invite their children to join finding problem-solving, through either textbooks or the internet, or some provide hint-notes. This study also confirms previous studies that ranked mathematics as the most difficult (Andriani et al., 2017; Basturk, 2010; Şahin et al., 2014). Therefore, the parents reported more frequent mentoring in the field, compared to science and ICT, as was discovered earlier (Baranovich et al., 2019; Pratt et al., 1992). Meanwhile, some parents do work for their children. Besides this act is not appropriate to do in the role of a teacher (Simpson, 2018), it possibly affects negatively children's education. The parents also play the role of the learner to be a better mentor. They find information from textbooks or the internet by their selves or together with children. This activity was felt to benefit both parents and children.

The parents also play as the personal model. Students believe in their credibility if they never fail to guide to the correct answer (e.g. in mathematics, and science), and be skillful in using ICT. Whereas when they failed, or are unable to use ICT, they will be underestimated. It proofs that a teacher's personality is associated with a student's attitude.

The current study has implications for the implementation of the online distance learning policy. Based on the findings, we suggest that parents be given a special curriculum that guides them to become better home teachers. Especially for difficult subject matter, such as mathematics, science, and ICT, schoolteachers should consider giving hints and explanations that are clearer and more functional, so that they can become a reference for parents who are mediators of communication between school teachers and students. In addition to the younger generation, the government should also promote ICT literacy in the older generation, so that students do not underestimate their parents.

Future research can quantitatively measure the association between the role of parents as teachers with student STM learning performance, the influence of parental character on the role of parents as teachers, etc.

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