

Exploring Digital Parenting Awareness During Covid-19 Pandemic Through Online Teaching and Learning from Home

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ABSTRACT

There is concerned that the students' knowledge and skills are not par as those who experience normal education before COVID-19 pandemic. Digital parents ought to participate in their children's new normal learning method because the students cannot have proper face-to-face education with their teachers and lecturers except online Teaching and Learning from Home (PdPR). For data collection, a questionnaire was developed using Google Form, and have been distributed to the children who are in schools, colleges and universities through WhatsApp application of the students or their parents for the children in the primary schools. The questionnaire consists the open-ended semi structured questions with some survey information along to each question. The emerging themes from the data are explained in Descriptive Analysis based from the 89 participants perspectives. The findings show that most of the children are ICT and digital literate due to the PdPR, and the things that they cannot control makes the PdPR become hard such as slow internet signals. The students agree that the parents could be qualified and skilled as digital parents if they got the financial and ICT skills supports from the Government of proper PdPR contents, and pedagogy of teachers and lecturers.

Keywords: Digital parents, Teaching and Learning from home, Malaysian Education, COVID-19 Pandemic, Lost Learning Generation, ICT

1. INTRODUCTION

Currently, all education systems in Malaysia at the kindergartens, primary and secondary schools, colleges and universities levels have started implementing online Teaching and Learning from Home or Pembelajaran dan Pembelajaran dari Rumah (PdPR) due to the Movement Control Order (MCO) starting from March 18, 2020 until today. Many issues have been raised regarding the weaknesses of the implementation in terms of pedagogy and PdPR content on the part of instructors, the availability of infrastructure such as internet access in residential areas, skills in using applications and gadgets by teachers and students, as well as financial constraints in covering the cost of broadband data, and appropriate devices. This research instead wants to look at the digital capabilities of parents in addressing this online PdPR problems as the home has been transformed into classrooms and lecture halls from the viewpoints of the children.

In the era of Industrial Revolution 4.0 (IR 4.0), the demands of the digital parenting segment are inevitable with the birth of ICT literate children from a very young age through devices that

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parents themselves expose. The objectives of this research are to understand the current situation of the parents in Malaysia when supporting their children who practicing PdPR, and to prepare the parents on becoming digital parents. It is interesting for the researchers to look at the ability of online PdPR children by having ICT literate parents, and whether these parents are also involved in the online PdPR. The researchers also want to know whether the state of digital inequality that exists from the findings of previous studies have make digital parenting sensitive by changing things at homes they live in permitted to contribute to the success of online PdPR.

Lost learning generation in this research context refers to the students who do not have the opportunities to experience normal face-to-face education in the classrooms, laboratories, workshops and field works between the students and their teachers, lecturers, and facilitators as normal education before COVID-19 pandemic.

2. LITERATURE REVIEW

The use of information and communication technology (ICT) among the economic and household segments show that the highly educated public have many advantages, compared to the poor and the uneducated who have low or no ICT asset ownership at all (Tewathia et al., 2020). Bordalba and Bochaca (2019) find the teachers and parents, from both low and high socioeconomic status schools, have expressed concern that by using digital media, schools might make existing social gaps widen and they want traditional channels to be maintained. The teachers and parents in non-ICT schools feel that the lack of non-verbal messaging could lead to misinterpretations in online PdPR, compared to the parents and teachers from ICT schools who have concerns about some features of digital media, and the contextual state of PdPR itself.

The students generally prefer synchronized offline meetings such as face-to-face (78%) compared to online (12%) because they are comfortable asking questions, more focused, and appreciate the physical environment during face-to-face meetings with their teachers such as quick reactions when interacting with each other, eye contact directly between students and teachers, as well as body language (Meulenbroeks, 2020). The benefits of ICT have accumulated over the years to segments of society that have many socioeconomic and educational advantages compared to the marginalized from the whole process of access and digital skills (Tewathia et al., 2020). Therefore, to increase the use of digital media and ICT, teachers must focus on fostering positive attitudes among parents rather than on the advantages of digital technology because many believes about such media are already positive (Bordalba & Bochaca, 2019). However, Hammer et al. (2021) understand that although children observe and follow how their parents spend time at home, the amount of time parents spend using digital media and ICT at home do not explain students' self-efficacy on digital media and ICT literacy.

A number of teachers from the ICT schools insist that digital media is an ideal tool for conveying simple information, but for more complex and serious topics it should be addressed through synchronous channels such as face-to-face (Bordalba & Bochaca, 2019). Although the COVID-19 pandemic has caused educational disruption and socioeconomic impacts that indirectly affected the poor and disadvantaged, it has opened up opportunities for innovation and resilience in the education sector that could enhance this post-epidemic recovery (Azubuike et al., 2020). Today, there is a need for teachers to see parents as partners and not as obstacles in the implementation of any innovation including the use of digital media to enhance parent-teacher communication (Bordalba & Bochaca, 2019). The findings show that earlier teens possess their own smartphones, tablets, and computers or laptops; and then the more time they are exposed in gaining experience and developing their digital media and ICT self-efficacy (Hammer et al., 2021).

A study by Horn and Rennie (2018) in Sarawak shows that a Universal Service Provision (USP) program in Malaysia is lacked of reliability and high-quality access without interruption. It makes

banking activities difficult such as online money transfers, accessing government services, news services, online education services, and other applications or platforms that aimed specifically at remote communities (Horn & Rennie, 2018). Starting from April 2020 until today, the PdPR has been conducted in all schools and institutes of higher learning (IHL) under the Ministry of Education Malaysia and the Ministry of Higher Education Malaysia following the increasing cases of COVID-19 pandemic in Malaysia.

Here, it is seen that digital parenting does not only refer to the parents who are themselves proficient in ICT but parents who adapt digital media and ICT skills among family members as well as provide an ICT environment that suits the needs of their families. This is to ensure the right of children to receive the primary and secondary schooling, also colleges and universities education is taken care of.

3. METHODS

Due to the MCO in Malaysia still being emphasized, the researchers did not have any other choice than opted for social media group application to ensure data could be collected on time. A Mixed Method approach had been adapted where a questionnaire was used with the aim to achieve all the objectives of the research. The questionnaire was developed using the Google Form and consisted of 10 open-ended semi structure questions that represented the qualitative part – which was the dominant method, and five multiple choice questions that represented the quantitative part for profiling purposes. Google Form was used because it was easy to prepare and distribute the questionnaire link through the WhatsApp application. The questions were written in Bahasa Melayu and English to make the participants more convenience to answer.

The sampling was random and they were children who studied in the primary and secondary schools, colleges and universities who involved PdPR. The link of the questionnaire was shared by the researchers with their students, colleagues, and neighbours for three months starting Mac, April and May of 2021. For data analysis, this research adopted the Thematic and Descriptive Analysis for the quantitative part, that supported by the participants' answers from the qualitative part. This would make the findings more meaningful for those who involved with PdPR in Malaysia.

4. RESULTS AND DISCUSSIONS

After distributed the questionnaire link for three months, the researchers decided to stop the data collection because there was no more new response received in the Google Form response. 89 participants were recorded responded to the questionnaire

The profiling of the participants is as follows:

Table 1. Participants Categories

Participants' categories	Universities, Colleges, High Schools Students	Secondary Schools Students	Primary Schools Students
Number	84 (94.4%)	2 (2.2%)	3 (3.4%)

From 89 participants, the Table 1 showed the distribution of participants who participated in this research where 84 were Universities, Colleges, or High Schools Students, two were secondary schools' students, and three were primary schools' students.

As to make the research more noteworthy, the researchers decided to explain the findings according to the Research Objectives being stated earlier. The researchers did follow up with 50 participants with phone calls who gave answers that were not similar, while the rest gave the similar answers that can be considered saturated.

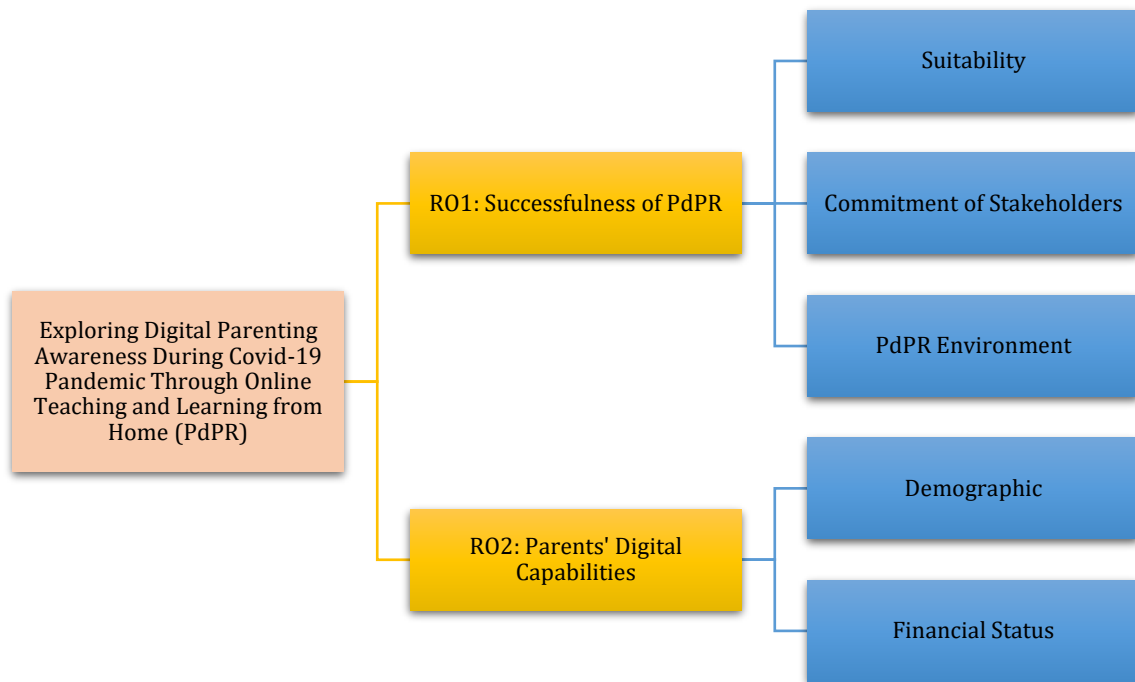


Figure 1. The Research Objectives and Themes Emerged

4.1 Research Objective 1: To explore whether the successfulness of PdPR as awareness of digital parenting.

Few research questions were constructed in order for the researchers to achieve the Research Objective 1. The findings and discussion were reported below based from the participants' answers.

RQ1: Are you comfortable with PdPR? Can you explain the strength and weaknesses of PdPR?

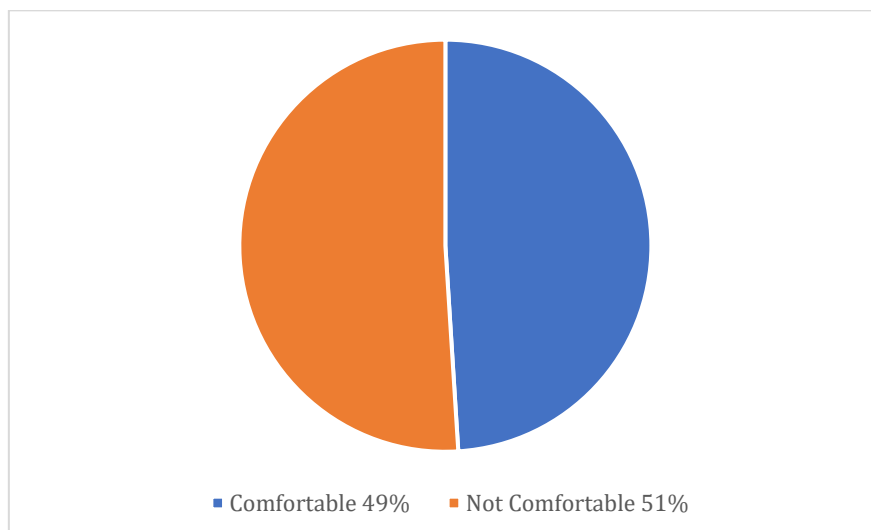


Figure 2. PdPR Practices among Participants

Figure 2 showed that 49% of the participants were comfortable with PdPR, and another 51% of them stated that they were not comfortable as being mentioned by participants. It showed that the number of students who comfortable and not comfortable with online PdPR was almost the same. Therefore, the achievement of the students in their studies using PdPR mode would only have advantages for half of the students in Malaysia.

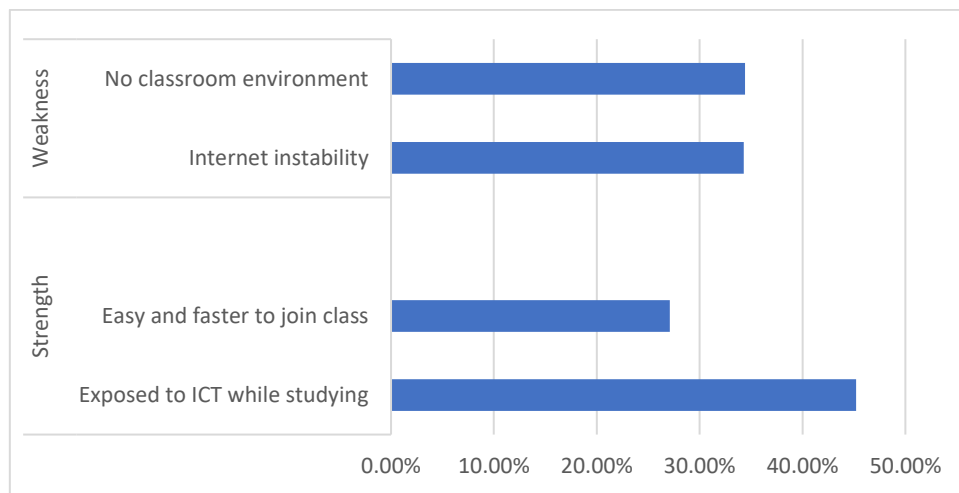


Figure 3. Strength and Weakness of PdPR from Viewpoint of Participants

The researchers wanted to know the PdPR experience of the participants after more than a year practicing it. The finding in Figure 3 on the strength of PdPR showed that 45.2% of the students said they had been exposed to the ICT technology while studying; and 27.1% stated that it is easy and faster for the students to join the class. On the weaknesses of PdPR, 34.2% of the participants highlighted that it was mostly due to internet instability, and another 34.2% participants emphasized on there was no class room or lecture theatre environment. The responses of the participants on the questions are as follows:

“At first PdPR was very tough.. I bet my lectures also were struggling because we have never exposed to this kind of teaching.. (we) never heard of Google Meet and Zoom.. First PdPR was so awkward.”- Participant 5

“I am not ICT savvy person but PdPR really excites me because I got the chance to use Learning Management System at par with top universities in the world.”- Participant 13

“Never in my thoughts I can produce my homework in video format and then shared in YouTube. It is not difficult.. I learnt from other people’s posts in the YouTube too.” – Participant 29

“There are many information being shared during PdPR.. the lecturers share YouTube links that related to the topics.. The best part of PdPR is I find it easy and faster to join the class even in my pyjama.” - Participant 33

"I miss my school and my friends. Nobody wants to on their video during PdPR. I also most of the time only keep silence during PdPR unless the teachers called my name." – Participant 29

"I hate PdPR because I need to help my younger brother and sister with their homework. I myself also have lots of homework to submit. Why the teachers in schools need to ask for video?" – Participant 49

"My lecturers teach better in the lecture rooms compare in the PdPR. They like to move around and write on the white board." – Participant 60

"We find it difficult to discuss with colleagues during the class or lecture in PdPR because everyone is passive and keep quiet." – Participant 79

RQ2: Whose commitment are important for your PdPR to be smooth and effective?

To make sure PdPR at home was successful, it demanded commitment and support from the people at home. Therefore, it was important for the researchers to acknowledge the role of the people at home that contribute to the digital parenting in Malaysia with regards to PdPR. The children had the right to attend the education in Malaysia and the parents or guardians could always inform the related Ministries if they had difficulties to send their children to schools, colleges and universities.

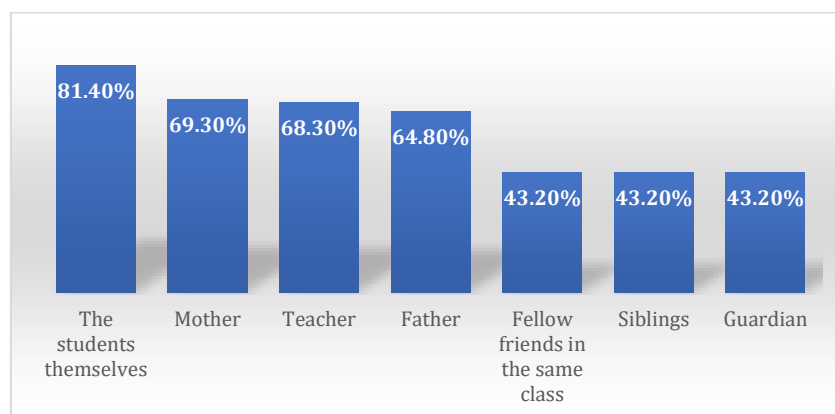


Figure 4. Commitment responsibility to make PdPR at home a success

Figure 4 tabulates that the students themselves were responsible for their own PdPR lessons as agreed by 81.4% of participants. This was due to justification that the students communicated directly with their teachers almost every day using platforms that had been identified in Research Question 1 on page 5. 69.3% of the participants mentioned that their Mothers were responsible because they gave full commitment as at home usually all the management of household were under mothers. Then, followed by Teacher (68.3%) because the teachers in schools managed all the schedules and lessons of the PdPR and syllabus. 64.8% of participants identified Father as responsible for the success of PdPR because fathers normally as main breadwinners would provide the internet connections and devices for their children. The participants also revealed that Fellow friends in the same class (43.2%), Siblings (42.2%), and Guardian (39.7%) shared the commitment responsibilities in making PdPR a successful.

The justification on the fact that the students did not go to schools, colleges and universities for face-to-face learning, so definitely support from the colleagues and fellow friends in the same

class was important especially for the assignment that needed team works and group works. For the children who shared the internet devices with other siblings, normally the older siblings would help their younger brothers or sisters to commit with the PdPR. Guardians such as grandparents held the same responsibility as parents when the parents were not around or not living with their children. As the result, the commitment of the guardians' weighted as same as the parents too to ensure the children had comfortable space and suitable devices.

The comments received from the participants were as follows:

"My mother always monitors our PdPR schedules because she wants to keep the house clean and ready with our food." – Participant 1

Both of my parents have to go to work so I depend on my brother's help during PdPR at home." – Participant 23

If I overslept or missed the PdPR, my teachers would inform my mother in the WhatsApp group. Then my mother would scold me because she said she was ashamed that I did not enter the class." – Participant 31

RQ3: Do you think your current PdPR's environment make your study interesting and easy to understand?

The researchers' perception toward one of the characteristics of digital parenting was parents who were able to provide a place for the children to comfortably do their PdPR at home. However, not every family would have the same luxury because it depended on their financial status. The data had revealed that the participants lived in limited space due to small houses, many siblings that on PdPR at the same time, and constraint of devices. They highlighted that the digital parents should have some plans where the PdPR was suitable conducted at their home. The locations of PdPR being conducted at home were shown in Figure 5.

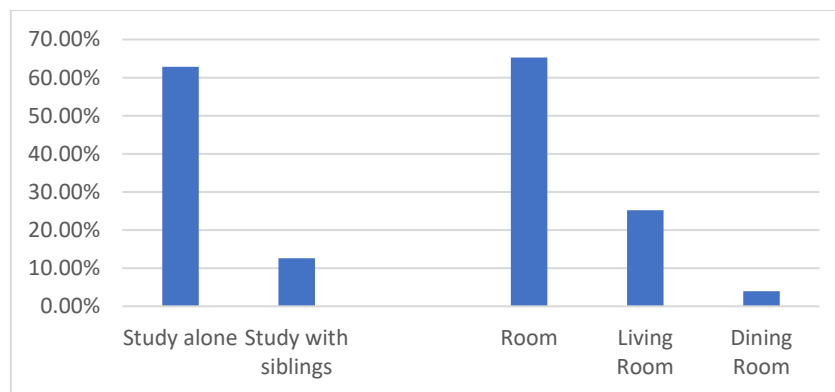


Figure 5. Location of PdPR at Home

Majority of the children preferred to study alone either in their rooms (62.6%) or in the living area (12.6%), though there was 3.5% who preferred the PdPR in the dining area. For the children who studied together with other siblings, they choose a place that had more spaces for everybody to fit in such as living area (12.6%), in their rooms (2.5%), and in the dining area (0.5%). The explanation of the choices was as follows:

"We only have a son so he studies in the family area." – Participant 2

“Well it depends on the age levels.. those in primary schools will be in the living area with parents, and those in the secondary schools prefer to study in their rooms.” – Participant 17

“My children attend the PdPR but they have to take turn to participate in the studies because of our device limitation.” – Participant 26

“They study online everywhere because they have teams. The teachers are good at teaching online but not over the What’sapp application.” – Participant 58

“There is no suitable place in the house at the moment because other siblings will come interfere.” – Participant 72

“Of course in the living area.. it is easy for the parents to monitor.” – Participant 85

4.2 Research Objective 2: To understand the parents’ digital capabilities in Malaysia when supporting their children who practicing PdPR.

The researchers believed in solving the constraints found in the Research Objective 1, the parents who had children in schools, college and universities needed to prepare themselves to be the digital parents. This would make the children’s education became more proper and organized at home when the parents understood the ICT requirements to make the online PdPR successful.

RQ1: What is your opinion about your parents’ demographic when we consider them to have digital capabilities in supporting your PdPR?

Majority of the participants (52.8%) agreed that their parents had basic ICT knowledge when they (parents) involved with their (children) PdPR especially if the children were still in the primary and secondary schools. The children in schools had difficulties in understanding their lessons, and skills to use the ICT devices during PdPR. Furthermore, the children in the institute of higher learning (IHL) experienced different way of study and they were more independent compare to the children in schools.

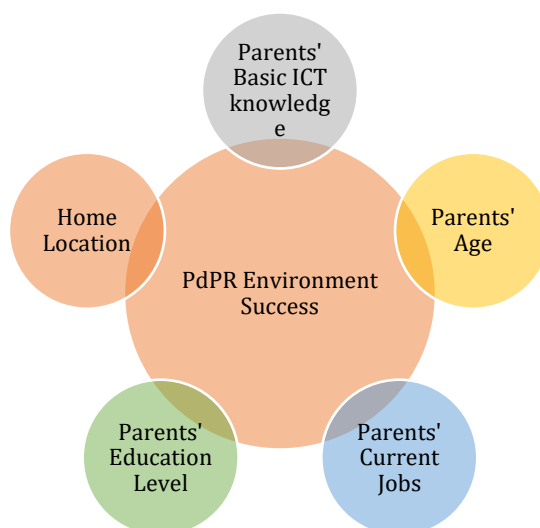


Figure 6. Parents’ Demographic in PdPR Environment Success

The participants also revealed about the parents’ education backgrounds, their current jobs, their age and the location where they lived had a huge influence on the PdPR success too. The reasons given were mentioned below:

“Only those in primary and secondary schools require to be monitored by the parents. But my parents only general workers and they do not use computer in their works. PdPR is quite tough for us.” – Participant 4

The area we live does not have a good internet signal. My father cannot afford to pay for expensive internet package too.” – Participant 18

“I think for schools and colleges students, parents’ involvement is very important. We have to see the situation of the PdPR such as application used, internet connectivity and devices.” – Participant 24

“I found it so stress to understand the teachers’ way of teaching.. My parents do not understand English so I need to get help from other people.” – Participant 48

“We live with our grandparents.. so all these PdPR is something they find interesting but they are too old to help us with our PdPR.” – Participant 50

It seems that the working parents that used ICT tools and application for their works did not find a problem for the parents to assist their children with the online PdPR. It is only the matter for the parents who were not working, and had limited knowledge and skills in English and ICT to be able to help their children with the PdPR.

RQ2: From your answers in RQ1, what you think could improve your parents’ digital capabilities in speedy time?

From RQ1, the participants believed in order to become digital parents, knowledge and skills on ICT and digital literate were important aspects to decrease the digital divide between the urban, sub-urban and rural locations where the families were staying. The participants expressed that the education background, age, home location and current job influence the success of PdPR but the most important was the financial status of the parents and guardians would justify their capability to provide comfortable space and suitable devices for PdPR as shown in Figure 7.

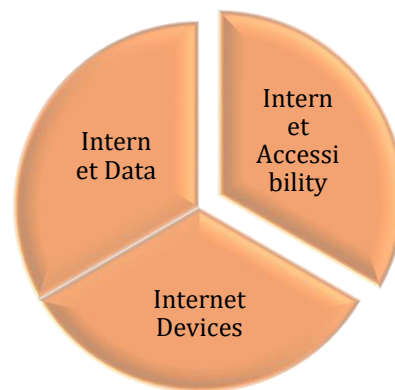


Figure 7. Parents’ Financial Constraint with regard to PdPR Success

The biggest challenge in PdPR faced by parents were to provide the suitable and affordable internet devices that supported the PdPR applications such as Google Meet, Microsoft Teams, Zoom, and Webex. The price of the devices such as laptops, computer and smartphones were more than the monthly income of the father in some cases. Some of the verbatim were shown below:

“Our parents are not rich. So quite difficult to be online simultaneously with our home have limited computer and data (to access online)”. – Participant 8

‘We don’t have any computer at home.. so only I have a laptop that I got from my cousin because I got a place in this college.. Then for PdPR all my siblings are sharing my laptop because my father cannot afford smartphone even for himself.’ – Participant 19

However, it is interesting too to acknowledge that the participants wanted the Government and authorities that involved directly and indirectly with PdPR to play certain roles to support the commitment of PdPR. The internet devices also needed internet network coverage in order for the students to access to their PdPR. The children mentioned that their parents required aid from the Government and Telecommunication Operators (telcos) to provide quality and stable throughput and bandwidth access during the PdPR. The other problem was that the data package their parents subscribed did not enough to cover for all siblings to do PdPR simultaneously because it was expensive as mentioned below:

‘The Government should think about allowing the children to go to schools and colleges... have rotation. PdPR is good but it is expensive to pay for data.’ – Participant 6

‘The authorities that in charge with the internet and telecommunication should be more responsible to provide better network services.. so the students are easy to follow their PdPR without any problems such as lost connection.. because this is one of the reasons that discourage the children (to learn).’ – Participant 47

5. CONCLUSION

All participants agree on the implementation of the online PdPR as an option to face-to-face Teaching and Learning during COVID-19 pandemic in Malaysia. This implementation has indirectly pushed fast forward the parents in becoming digital parents while adjusting, supporting and preparing their children with their PdPR. All the parents acknowledge that they have to equip themselves with the ICT skills too especially those who have children in primary and secondary schools, live in the rural areas and have constraint budget for ICT access and devices. The working parents only can help their children after the parents finish their works but during that time the parents already exhausted to help the students with their home works. The participants especially mothers also burnt out because their works have been increased particularly when their supervisors or bosses do not understand and support them in current COVID-19 pandemic at all. This could cause them losing their jobs when they could not accommodate with extra burden with regards to PdPR when they have to go to work as usual.

The conclusion has been simplified into Figure 8 with referred to of Research Objective 1 (RO1) and Research Objective 2 (RO2). In RO1, the exploration of the successfulness of PdPR as awareness of digital parenting in Malaysia shows that it is very much related to the commitment of stakeholders of PdPR - children, parents, and teachers, the PdPR environment at home, and suitability of PdPR. For RO2, the findings state that to understand the parents’ digital capabilities is depend on the parents’ demographic and financial status. Their digital capabilities are influenced by their demographic such as age, education background, their home locations, and job description when supporting their children who practicing PdPR. It reveals also financial constraint where PdPR requires internet access and ICT devices that are quite expensive to some of the participants’ parents.

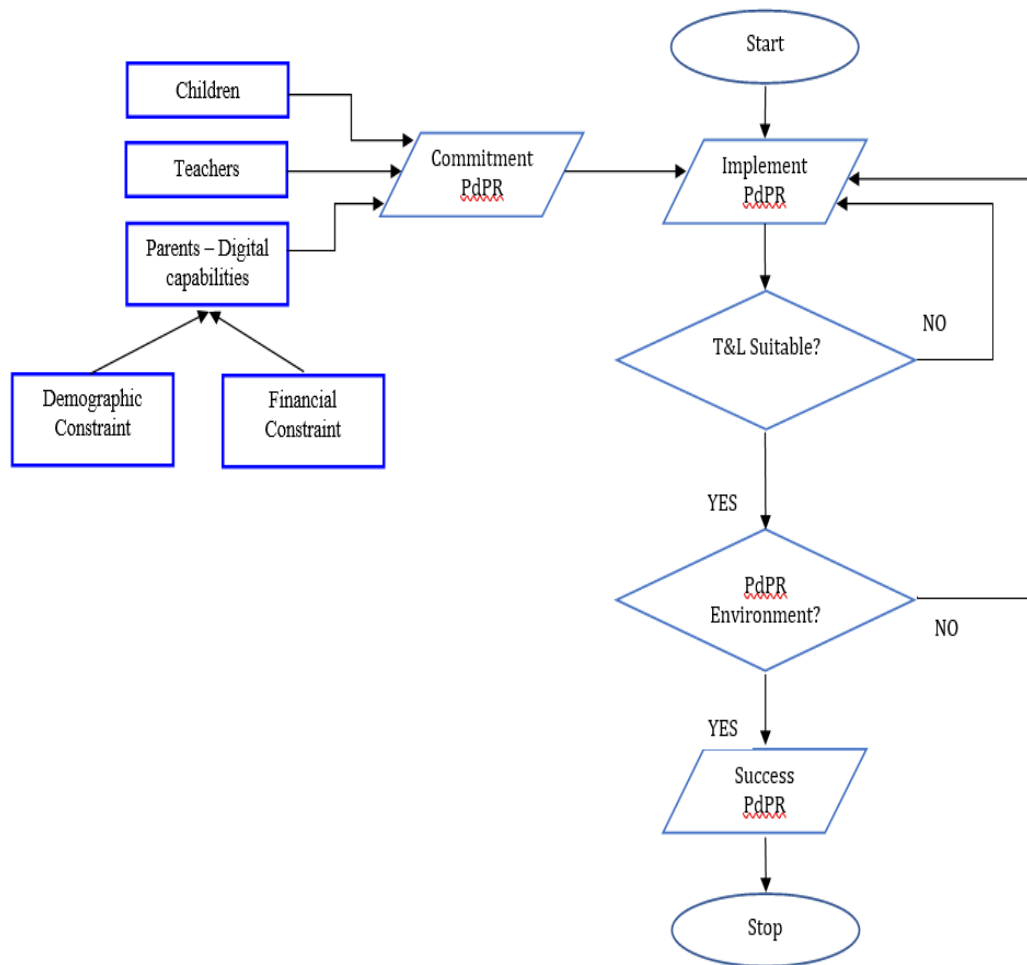


Figure 8. Proposed Model of Digital Parenting Awareness on PdPR Implementation during Covid-19
Source: Ishak et. al, (2021)

At home, the parents will monitor and discipline the children to follow schedule and finish their homework, and wake them up early for PdPR. For children with parents who cannot understand English and do not have any expose in ICT especially if the mothers are full time house wives, then PdPR is quite challenging. Digital parents should be able to provide the ICT device, internet access and PdPR environment but due to many children in the home, so the children cannot learn in serene environment because everybody has PdPR simultaneously. The parents can prepare their children with infrastructure – places, ICT devices, internet access. The researchers notice that not only infrastructure, the digital parents also state that they have to support their children mentally and physically because the children sometime got stress especially for children who being monitored through CCTV at home. The parents also communicate with the teachers through WhatsApp, so that the teachers can inform the parents about their children progress, absent and problems during PdPR.

The Government through schools, colleges and universities, and internet providers companies can help the parents with many children and limited financial to equip the disadvantages parents to avoid Malaysian children into becoming lost learning generation.

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REFERENCES

- Azubuike, O. B., Adegboye, O., & Quadri, H. (2020). Who gets to learn in a pandemic? Exploring the digital divide in remote learning during the COVID-19 pandemic in Nigeria. *International Journal of Educational Research Open, October*, 100022. <https://doi.org/10.1016/j.ijedro.2020.100022>
- Bordalba, M. M., & Bochaca, J. G. (2019). Digital media for family-schools communication? Parents' and teachers' beliefs. *Computers and Education, 132*(July 2017), 44–62. <https://doi.org/10.1016/j.compedu.2019.01.006>
- Hammer, M., Scheiter, K., & Stürmer, K. (2021). New technology, new role of parents: How parents' beliefs and behavior affect students' digital media self-efficacy. *Computers in Human Behavior, 116*(December 2020), 106642. <https://doi.org/10.1016/j.chb.2020.106642>
- Horn, C., & Rennie, E. (2018). Digital access, choice and agency in remote Sarawak. *Telematics and Informatics, 35*(7), 1935–1948. <https://doi.org/10.1016/j.tele.2018.06.006>
- Meulenbroeks, R. (2020). Suddenly fully online: A case study of a blended university course moving online during the Covid-19 pandemic. *Helijon, 6*(12), e05728. <https://doi.org/10.1016/j.helijon.2020.e05728>
- Tewathia, N., Kamath, A., & Ilavarasan, P. V. (2020). Social inequalities, fundamental inequities, and recurring of the digital divide: Insights from India. *Technology in Society, 61*(September 2019), 101251. <https://doi.org/10.1016/j.techsoc.2020.101251>