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## THE URGENCY OF PARENTS DIGITAL LITERACY TO PREVENT THEIR CHILDREN FROM HARMFUL EFFECTS OF SMART-MOBILE DEVICES

**Muhammad Luthfi Hidayat\*, Vina Listiawati†**

*Department of Biology Education  
Universitas Muhammadiyah Surakarta  
Indonesia*

*\*m.luthfi@ums.ac.id, †vl656@ums.ac.id*

### Abstract

The development of digital technology affects many aspects of family life, including the way of parenting and childcare at home. This article aims to provide applicative steps for stakeholders and parents to have digital literacy awareness as an effort to protect children from the bad effects that can be resulted by gadgets use at home. In the past decade, working parents handed over the babysitting to a babysitter or housekeeper. Currently, parents give their children gadgets and internet-connected mobile devices, because the gadgets full of games and applications that attract children attention. A gadget is significantly kept children calm and fun to play at home without disturbing their parents. However, the parents have weak digital literacy in the context of educating children in the age of digital information. From several researches, there are some harmful effects that parents do not realize about gadgets in the hands of their children, such as the low of social interactions, addiction, radiation, pornography, obesity and cybercrime that threaten the children even they are at home. The solution offered in this article is a parents digital literacy education, which consists of five basic concepts: technology literacy, communication literacy, information literacy, digital parenting literacy, and dien literacy.

**Keywords:** *parents digital literacy, smart-mobile device, harmful effects, gadget, children*

### INTRODUCTION

Nowadays, the development of digital technology, especially gadget, has great influences in all aspects of human life. A gadget is an English term which means a small mechanical or electronic device or tool, especially an ingenious or novel one (Oxford Dictionaries, 2018). Gadget could be a computer, laptop, tablet PC, and smartphone on which people could access everything just by using an internet connection. The joint research between Google and TNS Australia showed that 50% of Indonesian used a smartphone as a major communication device. This research also pointed out that the usage of internet in Indonesia was for social media access (Palupi, 2015).

Based on the survey that was conducted by Internet World Statistics, Indonesia is a potential market for the development of the internet in the world (Tria and Mitsalia, 2016). The data from National Census in 2011 also showed that the usage of internet via gadget was accessed by all the citizens, including children age 5-17 years old. This census also stated that at least 15.3% of Indonesian children have accessed the internet by using the gadget in the last three months before the survey. Among the children, almost half from the proportion (44.66%) was from the age group 16-17 years old and the smallest proportion was from the age group 5-6 years old (0.47%). The definition of children in this article is from the concept of the developmental period in

Islam, known as *At-Thifl* phase, which range from the age of 1 months old to 7 years old. Another children concept that used was the concept of childhood phase from Elizabeth Hurlock, which ranging from the age 2 years old to puberty (Desmita, 2014).

In one hand, from the psychological point of view, the gadget usage by the children at the early age is not recommended because it could affect their natural growth and development. Children also lose their chance to learn because gadget only gave a one-way communication responding. Children also could not learn how to communicate and socialize naturally, not able to recognize humans emotion such as sympathy, sad, and happy, and in the end, children could not response the signal from their surrounding environment both emotionally and verbally. As a result, the loss of ability to respond will affect their skill development to interact and adapt to people (Novitasari and Khotimah, 2016).

Novi et al. (2014) stated that the children often used the internet without proper parents companion. Some parents even deliberately provide many kinds of gadgets with the latest technology so that their children will be quiet and focus to play with the gadget, so they will not disturb their parents works. Sometimes, both children and the parents are busy with their own gadget. This phenomenon showed that parents digital literacy still at the minimum level and lead to the misuse of the internet by the children.

Elly Risman (in Mardiyah, 2014) and Leung and Lee (in Novi et al, 2014) suggested some risks of accessing gadget by children without parental control, i.e. (1) children are exposed to violent, pornography, and hate content from internet, even exposed to social deviance such as pedophilia; (2) children are commercially exploited, privacy disturbed, and connected with the unwanted people; and (3) raise the tendency to withdraw themselves from the direct interaction with family members and choose to live in a virtual world because they think it is more attractive than the real world. The tendency to live in a virtual world is usually done by the new users of internet due to the lack of knowledge, emotionally not mature enough, and euphoria in using the internet. Because the children tend to be alone when they were online, it is important for the parents to monitor the activity of their children to reduce the negative impacts of the internet.

On the other hand, gadget offers a number of conveniences in peoples lifestyle, especially in the 21<sup>st</sup> century, such as for work productivity, e-commerce, transportation, entertainment, and even parenting styles. Both parents are usually busy with their own work, then choosing gadget to their children because it can make them calm. By giving a game or watch video-sharing website Youtube that were installed in the gadget, the parents feel that they already have given educational entertainment to their children (Edy, 2015).

Based on the research from one of Integrated Islamic Kindergarten, Tria and Mitsalia (2016) stated that gadget is not always giving negative impacts to the children. The result showed that 71% of parents stated that gadget has the following benefits: (1) improve childrens skills in foreign language; (2) follow the lesson such as memorizing the *Al-Quran*; (3) as an entertainment media for the children as long as there is a limited time, and (4) boost childrens intelligence while playing the game level by level.

Digital technology is always like a double-edged sword. If it used well, it will provide many benefits for people who used it. However, there will be negative impacts if it used without the literacy skills. Digital literacy is the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills (Lynch, 2017). Digital literacy is not only knowledge or education about digital media or internet skills, but also the understanding about the negative impacts that can be inflicted from digital media messages and learn how to anticipate it (Tamburaka, 2013). The intense movement of digital literacy in Indonesia was started three years ago. Starting from the anxiety of campus

academics, child psychologists, and mental health experts who thought that the usage of internet and digital media needs a concern due to the increasing number of the behavior deviation of children who access the internet from the gadgets that provided by their parents.

One of the most important components of digital literacy is the ability to not only find but also evaluate the information whether the source is reliable or not. It is the parents duty to educate their children how to know the truth of information on the internet and choose what kind of information that is appropriate for them (Lynch, 2017). The ability to get rid of negative information for the development of mental and psychological of children is an important part of digital literacy and parenting skills in the 21<sup>st</sup> century.

Parenting styles in the digital era cannot be separated with the combination of digital literacy and religious and ethical values, which known as the important combination of the key success of parenting in the 21<sup>st</sup> century. Therefore, this research will elaborate how to combine the parenting styles with the digital literacy and religious and ethical education to prevent the negative impacts of a gadget.

## RESEARCH METHOD

This study was used literature review as a research method. A systematic literature review is a method to identify, evaluate, and interpret all available research relevant to a particular research question (Kitchenham, 2004). The sources of data were from the textbook, journal, and scientific articles.

The focus of this study was about the negative impacts of gadget especially from a smartphone or smart mobile device. According to Oxford Dictionaries (2018), a smartphone is a mobile phone that performs many of the functions of a computer, typically having a touchscreen interface, internet access, and an operating system capable of running downloaded apps. Hill (2010) stated that a smartphone is a handheld device, capable of providing wireless voice communications along with support for other applications. Data applications typically include messaging (both text and multimedia), e-mail, audio players, and Web surfing via a Graphical User Interface (GUI)-based browser (versus the more primitive type of handheld devices with text-based browsing). While the definition of a smart mobile device is a device that can be carried by the user, such as cell phone, PDA, wristwatch, etc; autonomous, such as robot; or device that is embedded in a moving object, such as car computer (Rodden, 2000)

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## RESULT AND DISCUSSION

The urgency of parents digital literacy can be derived from the synthesis of the types of digital literacy, the target of risks prevention, and parenting styles. Firstly, the types of digital literacy are needed for parents, thus they will be able to accompany their children in using gadget. Secondly, The target of risk prevention is important so the aim of literacy program will be more specific. Lastly, the parenting styles, in order to make the program working continuously. This synthesis results in the “5 Formula of Child Companion by Digital Literated Parents” as follow:

### Technology Literacy

The proficiency in technology is closely related to digital literacy. It starts from the very basic computer skill to advance one such as editing digital movie or computer programming. Technology literacy in terms of digital literacy involved both good online skills and habit, i.e. reflection, critical awareness, and responsibility. Therefore, digital literated parents will understand that gadget which connected to the internet will give any information, often without a filter, to their children. Some parents may excuse that they already selected appropriate videos or contents to their children. However, in fact, even games that design for children are often embedded with negative advertisements such as pornography, fraud, commercial exploitation, and cybercrime.

By understanding the technology literacy, parents will aware that to accompany and protect their children from the negative contents or ads they should know and understand about the detail of gadgets contents, especially smartphone, that are given to their children. Parents could use specific software that is designed to filter the negative content, for example, Kakatu app that is available on Google Play Store or Apple App Store. Kakatu is a smartphone application created by Indonesian developer which gives parental control to prevent children from addicted to gadgets (timer feature), pornography content, cyberbullying, profanity, etc. This app also includes “Parent Mode” and “Kids Mode” feature so that the smartphone user could be switched between parents and the children. This app even contains “Block Incoming Calls” feature so that stranger could not make a phone call.

In addition, there should be a limitation for children to access the internet at home to minimize the risk of exposure to negative contents. Parents also need to obey the application policy, especially about the age and usage restrictions. For example, many apps and social media have age restrictions over the

age of 13, thus it should become a big concern for parents. If the children have to use the social media, parents should have to monitor the activities of their children while they were being online in a wise and kind approach, because an intimidating approach will only make the children feel not comfortable thus choose to play *hide and seek* with parents

### Information Literacy

Information literacy is one of the important aspects of digital literacy. By understanding information literacy, people will have the ability to assess what kind of information is needed, how to find it by online, and how to critically evaluate and apply it. Previously, information literacy is applied for library use. However, nowadays, information literacy could be translated into digital domain as an ocean world of online information without the filter. Therefore, people should have the ability to critically think and check the content and its source on the internet. There is also anti-hoax software to filter fake news on the internet. One of anti-hoax software is Hoax Buster Tool which is created by Indonesian and could be downloaded from Google Play Store on Android smartphone.

Parents should know the information literacy to accompany their children when they download and upload the information on the internet. Parents should help their children to understand what kind of information which only for personal use, such as their own personal information, family members, and friend for their own personal knowledge. Any information such as full name, handphone number, address, bank account number or credit card is for personal use and should not be shared with the others. Parents also should warn their children that any information which already uploaded online could not be deleted forever, because internet always leaves traces and could save any information of the user during they were online. One social media platform also usually connected with the others. Even if they already deleted information from one website, the older version may still exist on the others and still can be distributed online.

Keep personal information secure is important to keep the children away from online crimes such as fraud, forgery, theft, even cyber sexual violence (sexting, sextortion, and grooming) that lead to childrens sexual exploitation.

### Digital Parenting Literacy

Parenting literacy in digital era needs a special strategy that combines psychology, digital literacy, and religious approach. Elly Risman (in Mardiya, 2014) stated that parenting styles in digital era needs

parents readiness which is applied in the form of attitude and behavior, as follow:

- a. Both parents should have full responsibility for their childrens education
- b. Physical and emotional intimacy between both parents and their children
- c. Clearly define the parenting purpose
- d. Talking and acting compassionately to the children
- e. Teach their children to love religions creed (*Aqidah*) and rules as early as possible
- f. Preparing the children for puberty

### Communication Literacy

Communication literacy is a combination competency of thinking, organizing, and connecting with others in a networked society. In particular, youth today need to understand not only how to integrate knowledge from multiple sources (music, video, online databases, etc) but also how to use it to disseminate and share knowledge.

In addition, communication literacy also means as parents literacy to be able to communicate with their children effectively. Thus, parents need should learn how to speak properly, to not lie, to not be in a hurry, to know their children, to greet them by a unique name, to know their body language, to give the time and actively listen to their own feeling. Parents should not choose the way of communicating by blaming, commanding, labeling, and comparing the children, because they will feel worthless, their brain could not develop properly, and unable to choose and make decisions. Thus, the childrens soul will be empty and emotionally and spiritually unstable.

Another type of communication literacy is by promoting discussion as a substitute of technological activities. Parents should encourage their children to speak, not only about their daily activities but also about their feeling. For example, parents may ask their feeling today, what makes them happy and sad. Therefore, they will be automatically tell everything to their parents when they feel something that needs to be shared. If parents want to limit the use of gadgets for their children, they should give others activities that can be easily done, such as follow a private class of swimming, dancing, basketball, football, guitar, drama, etc, even when their parents are not at home.

### Dien Literacy

*Dien* literacy is a key that determines the literacy efforts of the parents. *Dien* is an Arabics term means religion. Teaching a religion to the children is an obligation for both parents. Religious education should be taught as early as possible, not just giving

this task to the schools. In this case, the aim of teaching religion to the children is not only how to read the *Al Quran*, fasting, or go to the mosque, but also teach them how to love these activities emotionally, not just like or can do it. Thus, when the parents were not at home, the children will use to perform the religious activities, even when they saw or experience the negative things in the digital era. Teach them how to hold back and lower the gaze when they see something that is prohibited, such as *aurat* of the opposite sex. If they already feel that Allah is always watching then (*muraqabatullah*) so the children will feel ashamed to do something that is hated by Allah, because they already know what kind of action that is more favorable by God, as their parents taught before.

Preparing children for puberty is also one of important part of *dien* literacy. Most parents usually avoid talking about the sexual topic to their children because they feel embarrassed and think that it is a taboo topic. In fact, Elly Risman (in Mardiya, 2014) stated that it is important to talk about that topic at the early age according to the development of them at the particular age. When children have already entered the puberty, it means that they already sexually active and needs to understand that they already have a full responsibility for their own sins and rewards. They are no longer become children who still have parents, but a mature human being that has responsibility and command to the God.

The discussion above could be a guidance educate and accompany children in using gadget with internet, and has benefits such as (1) parents will more aware about the interaction between the children and gadget with internet, including its impacts; and (2) teachers as parents at schools could apply it while accompany the students to use internet at school for finishing the tasks in teaching process.

### CONCLUSION AND SUGGESTION

Parenting styles need to include digital literacy which consists of five basic literacy concepts; technology literacy, communication literacy, information literacy, digital parenting literacy, and *dien* literacy. Furthermore, parents companion is also important to educate and accompany childrens growth and development in the digital era, including define the aim of parenting and rearing children and preparing them to be ready when they hit puberty in the era of digital technology.

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