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A Digital Literacy Workshop Training Model for Child Parenting in a Fourth Industrial Era

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Abstract

This study aims to describe how a digital literacy workshop model is ideal for parents in the fourth industrial era. The study used a descriptive qualitative method. The data collection techniques used were interviews, observation, and literature study. The research was conducted at Cibeureum, in the South Cimahi Subdistrict, in Indonesia. The research subjects consisted of five parents with children aged 7 to 16 years old. The findings of this study indicate that knowledge, understanding, and skills in using media, especially social media, among parents are still lacking. Hence, leading to inadequate parental supervision of children's activities on social media within the digital age and now the fourth industrial era, which comes with a lot of challenges. The present study established a digital literacy workshop model for parents that may be appropriate through a combination of theory and practice, as well as the mentorship of parents in the guidance of their children within this era of the fourth industrial revolution. The workshop model helps to increase the knowledge and ability of parents in using social media and also helps to improve parental supervision of children in using other forms of technology.

Keywords: Digital Literacy; Online Human Resource Training; Parenting; Technology Literacy; Training; Workshop Model.

1. Introduction

Historically, literacy is known for enhancing people's knowledge and also equipping the less educated with the basic skills required to perform their daily tasks efficiently [1]. Today, with both abrupt catastrophes and humanitarian crises, such as wars, affecting people from all walks of life, there is a need to innovate through dynamic learning digital technologies [2]. The use of digital technologies leads to sustainability in service delivery, including learning and facilitating continuous human development, hence influencing economic growth and development positively [3].

Digital literacy has become an eminent component of development in the present rapidly changing world [4], influenced heavily by the changing nature of information and communication technologies within the present-day 4th industrial era, impacting the various aspects of human life [5]. The internet has become a part of everyday life [6]. A survey conducted by the Indonesian Internet Service Provider Association (APJII) every year indicates that internet usage and users in Indonesia are always on the increase [7]. Eloksari (2020) [7] further notes that in 2018, 171.17 million internet users amounted to 64.8% of Indonesia's population. It is said that this number has increased by 10.12% from the

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previous 2017 figure, which was 143.26 million people [7, 8]. One of the main reasons for using the internet is communication through messages and the use of social media. As a tool that facilitates innovation in learning and training [9], presently, the internet is not only used by adults or teenagers, but it has also become a common tool of association for children [10], hence calling for parental attention regarding digital social innovation [11]. It is also stated that the most significant internet users in Indonesia are in the age group of 15–19 years, which is 91% of the users [12], making teenagers the largest group of internet users.

This age group is referred to as a "group of digital natives" [13]. This generation is of people born in the digital age, with the internet becoming part of their everyday life [14]. This generation is also defined by activities such as multitasking, online social networking with a large number of people, interactive digital gaming, accessing random information, and the desire and demand for easy and quick access to information [15]. According to Benaziria (2018) [16], the motivation of Indonesian children and adolescents to use the internet is driven by three things: first, the perception of the internet as a medium of entertainment; second, looking at the internet as a medium of communication and networking with friends. Thirdly, is the demand for school information to complete a school assignment. The most prominent social media engagement in Indonesia is Facebook, which is accessed by 86.7 million people, or 50.7% of Indonesia's internet users—then followed by Instagram, YouTube, and Twitter [17]. While WhatsApp is the most widely used personal communication medium [18], these various social media platforms are used by almost every Indonesian teenager, including children.

Nowadays, using the internet and social media by children and adolescents are easily accessed through mobile phones [19]. The trend of children and adolescents alike, which has resulted in the unavoidable attitude of using social media in their everyday life has led to addiction or digital gadget dependence. This is because of rapid transformations in information and communication technologies, which have led to the birth of artificial intelligence within the fourth industrial era [20]. Parental knowledge about the digital era with all its innovation is highly needed to help guide the young generation during this time of excessive use of the internet among adolescents, something that can lead to various negative impacts. According to [21], it should be known that either directly or indirectly, the adverse effects of social media are potentially experienced by adolescents from all the social strata of society today.

Digital literacy for parents, is a very important element in parenting training [22] because crimes occurring across social media networks are diverse, ranging from the dissemination of hoaxes or propaganda, violation of privacy, cyberbullying, cybercrime and exposure to pornographic content and sexual violence. Based on the Child Protection Commission in 2018, there were 679 cases of crime that occurred to children due to the uncontrolled use of social media [23]. There are 116 cases of children being victims of online sexual crimes, 134 cases of children as victims of pornography from social media, 96 cases of children as sex offenders online and 112 cases of children being perpetrators of possession of pornographic media [15]. There were also 109 cases of child offenders and 112 child victims of bullying on social media [12]. It has also been revealed that the crime rate of children on social media continues to increase every year [24]. This is primarily attributed to the many parents who freely let children use gadgets without strict supervision [25]. This paper is based on assumption that many parents are not aware that their children are in danger when using the internet or social media [26]. It is public knowledge that parents mostly supervise their children more often offline [27], whereas, in the present era, online child supervision is also needed [28], because of the vast and free network of children on social media [10]. A digital literacy workshop training for parenting is a necessity for parents, because, if parents do not know about their children's social media activities, they may not prevent the occurrence of digital crime perpetrated by cyber offenders against their children.

The use of social media also brings behavioural changes to the community. For instance, presently, communication between communities is becoming increasingly rare due to increased online activities. Studies are continuously revealing that community social control has diminished as people are busy with their gadgets [29]. With the attitude of a free world, society tends to be unconcerned about what is happening around the digital world, hence allowing children and teenagers to use social media freely without control. Yet, it is important to note that there are negative impacts of using the internet and social media which need to be watched out for and anticipated by parents [30]. The lack of supervision of children in using social media by parents is brought about by the fact that many parents do not understand how to use social media. This makes, it clear that parents without the knowledge of digital technology cannot prevent digital crime since they do not know about their children's activities in cyberspace.

One of the actions that can be taken to overcome the negative impact of the use of social media and the internet is through digital literacy for parents. Mastery of digital literacy by most parents has become an absolute need, especially as online platforms keep changing. The use of the internet and social media by children in daily life is at an integral stage. Parents are the first target in the development of digital literacy in the family because they must be an example of a scholarship for children in using digital media [31]. Digital skills are related to the technical capabilities of accessing the internet, as well as the ability to filter various information and entertainment provided by the internet [32], including a variety of popular applications for children. Thus, literacy has meant not only limited to the child's process of interacting with the internet but also how that interaction has contributed to various aspects of child development [16].

According to Gilster (1997) [33], digital literacy is defined as the ability to understand and use information from various digital sources. Bawden (2001) [21] expands a new understanding of digital literacy, rooted in computer literacy and information literacy as a field associated with technical skills, knowledge and dissemination of information. Digital literacy refers to and cannot be separated from literacy activities, such as reading and writing, and calculation which are education activities [34]. Therefore, digital literacy is a life skill that involves the ability to use Information, Communication and Technological devices [35], to develop the ability to socialize, learn, have positive attitudes, develop critical thinking, creativity, and gain more digital competencies required to live in a rapidly changing world. This means that digital literacy is a set of skills needed to understand and use digital technologies and media to face the challenges that arise in the digital age.

According to Masur et al. [36], digital literacy is an effort to find, use, and disseminate information effectively. Digital media is one of the components of new media. Silvana and Darmawan (2018) [37] mention that there are four new types of media, that is interpersonal communication media, such as e-mail, interactive gaming media, such as games, data, or information search media, which includes internet search engines and participation media, comprised of chatting on the internet. Social media is one of the media currently used by almost all levels of society [33]. The use of social media is the content most often accessed by the people of Indonesia. According to Kurnia, Johan and Rullyana (2018) [25] social media is a communication tool that can be used as a source of information, and in its use, media literacy skills are needed.

In this study, what is meant by digital literacy is the ability and expertise of parents in using digital tools and the term internet is limited to the use of social media mostly by children and adolescents, including Facebook, WhatsApp, Instagram, YouTube, and Twitter to support communication activities between parents and children in cyberspace. Various efforts to increase public digital literacy have often been made, however, so far, socialization of the digital literacy activities in Indonesia is still limited with young people being the most dominant target groups, and the closest partners are schools.

The author argues that digital literacy must also be massively extended to families, schools and larger national programs [38]. The degree of literacy at the family level can be done through the workshop training of parents. In other words, strengthening the digital literacy skills of parents, it can be done through counselling, seminars, and training on how to use the internet appropriately. Workshops are an alternative education and training method to improve parents' digital literacy, where the use of scarce resources is optimized, hence, parents do not need to spend a lot of their little resources meant for family programs. Workshops also combine theory and practice, thus providing not only an understanding of social media but also direct practical activities conducted by parents to have the ability and skills to use social media. This research is essential in identifying the right parental training digital literacy model which may be suitable for the parents' condition.

2. Research Methodology

This study applied a descriptive qualitative research method. According to Gay et al. (2006) [39] qualitative research is a form of research which is systematic regarding, the collecting of data, analysis of the data, its interpretation and discussion, which is conducted based on narrative information, events, phenomenon and objects, which include archaeological findings, historical discoveries and many others. This means that qualitative research is based on a real-life situation happening in its natural setting. The following figure 1, illustrates the steps followed in this research:

From Figure 1, it is noted that the authors started with a literature review as the best way to establish the research's guiding concepts. The focus, become digital literacy, in which letters embraced the concepts of parent training and children's use of digital and other social media networks. The authors decided to embrace a descriptive qualitative research method, to have a thorough and close investigation of the use of digital technologies by parents in families and how it influences children's social life. Since the study focuses on a digital literacy training model for parenting, the research tools were mainly about digital literacy, child upbringing and how they are affected by the cyber world.

The research was conducted at Cibeureum, South Cimahi Subdistrict, in Indonesia. The research subject consisted of five parents with children aged 7 to 16 years old. The findings of this study indicate that knowledge, understanding, and skills in using media, especially social media, among parents, are still lacking. Hence leading to inadequate parental supervision of children's activities on social media within the digital age and now the fourth industrial era comes with a lot of challenges.

Qualitative research is a broader procedure used to study social phenomena and researchers are more focused on digging into details naturally. This method uses simultaneous and multiple techniques during data collection, to ensure objectivity and validity of the information obtained [39]. The data collection was through observation, in-depth interviews, and literature study. Observation and Interviews were conducted comprehensive to obtain data about parents' knowledge and ability of digital literacy and the role of parents to supervise children in internet usage. Furthermore, the literature study is carried out by gathering information taken from relevant books and journals related to research problems.

After conducting observations, interviews, and literature studies, researchers construct information obtained and map out a form of digital literacy education pattern that is appropriate for parents through the digital literacy workshop model. Data were analyzed through three steps, that is: data reduction, data display, and conclusion drawing. The validity of the research data was carried out using the triangulation technique. Triangulation is a way to obtain detailed data using the dual method [23]. Data triangulation in this research was by combining observation, interview, and case study techniques.

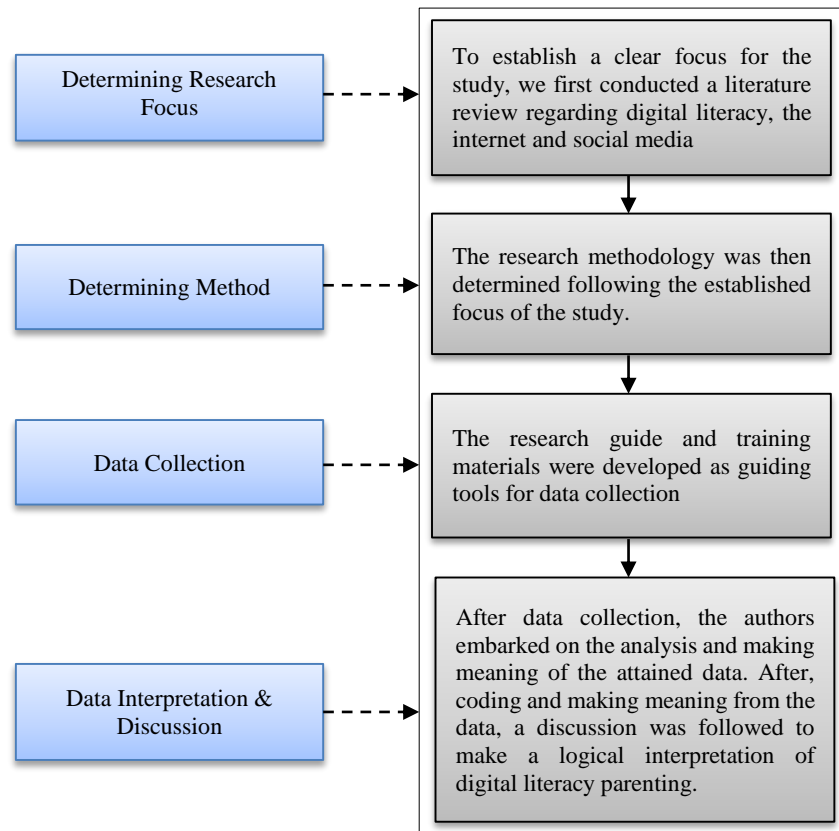


Figure 1. Illustrates the Step-by-Step Research Flow from Start to Completion

3. Results and Discussion

Digital literacy in the family aims to improve the ability to think critically, creatively, and positively in using digital media within one's everyday life in this era of the fourth industrial revolution [8, 12, 15]. The training was conducted based on the fact that with parents' participation in their children's cyber activities, there are many bad characteristics to be learned by children from the internet. This, therefore, calls for parents to become part of the main actors in the digital literacy movement [19, 13, 33]. To ensure parents acquire the necessary literacy competencies, the researchers focused on three aspects, that is the parents understanding and ability to use social media, social media obstacles, and also enhancing the parents' digital literacy abilities.

3.1. Parental Digital Literacy Skills

To establish the level of digital literacy competencies among parents regarding the use of social media, we used indicators that are composed of the ability to access the internet, the ability to use social media, and the ability to supervise children on social media. In this regard, at the start, it was observed that parents' skills are low compared to those of the children.

Based on the observations of researchers, the majority of research subjects already have a gadget with a type of smartphone that can be used separately for various digital activities. The ability to access the internet is also previously owned. Some informants already understand how to connect a smartphone to the internet. But some informants don't know how to use their smartphones to access the internet as the interview results were conveyed by informants that I did not understand how to use the internet. Cell phones owned are only used to communicate via phone or send short messages.

The ability to access the internet is a rare beginning for someone using social media. Someone who has been able to access and use the internet can be told that he already has the initial ability as a basis for developing digital literacy. Next is the ability of parents to use social media. This ability is included in individual competencies, namely the ability to use,

produce, analyze, and communicate messages through the media. Individual competencies are divided into two categories, namely: Personal competence: one's ability to use media and analyze media content; and social capability; one's ability to communicate and build social relations through the media and able to produce media content [7]. Based on the interview results, it was discovered that there are three types of individual ability found within parents regarding the use of social media, they include the fact that: parents know about social media applications, but don't understand how to use them; parents know and understand how to use social media but choose to limit themselves in using it, and parents understand and become users of social media but are still in basic understanding.

In the first type, parents' knowledge about social media applications is not obtained from their gadgets but through information from television and other media or their children. This is because parents do not understand and understand how to use the application features available on social media. In the second type, parents already know and understand how to use existing social media applications. But chose to limit themselves to using it. As the results of interviews with informants stated that in fact, I was afraid to use social media. Because there are so many criminal cases that I hear about on social media, I rarely use social media, only when I need it. I only understand how to use WhatsApp, and even then, only to communicate. I also didn't give my child any gadgets. Because I was afraid, he could fall into negative things or become a victim of crime.

The third type is parents who already understand and become social media users. Parents who already know about social media applications, there are even some who already have social media accounts. Through the observations of researchers, the ability of parents to use social media is still at an essential stage. The most common activities are chatting, status updates, and photo and video updates. Many features in social media are not used because they do not understand how to use them.

The majority of parents are not aware of children's activities on social media based on the results of the interview. They do not know what social media is actively used by their children, with whom they are friends and what children write on social media. Besides, many parents complain about the difficulty of stopping children from playing with gadgets. Parents often see their children playing games for hours, children become lazy to learn, and children prefer to play with their devices rather than communicate with the surrounding environment. Gadgets are also very private for children, so parents cannot see or even hold a child's gadget. Various security features in the market so that no one sees their device.

Based on the interviews, the informants stated that sometimes they are confused about how to stop children from playing with mobile phones. One of the informants said, "I am even forced to take the handphone from the children because they had no finishing time to use phones. The informant concluded by saying that I am actually worried and anxiously in need-to-know what children do with gadgets, but at times as parents, we are limited, since the limited time given to mobile phones or gadgets, so some children seem to be more advanced than some us parents when it comes to using mobile technologies.

This means that a digital literacy workshop training for parents is very welcome and appropriate for better child upbringing. This can help to reduce the negative impacts brought about due to the use of digital media and the internet among children and adolescents nowadays. Because weak parental supervision is due to parents' minimal knowledge and limited mastery of digital technologies [35]. In addition to digital literacy competencies that must be possessed by parents, they must also develop the ability of guidance and be ready to assist their children in selecting educative and responsible internet content for consumption. Lapsomboonkamol et al. [8] mentions that in this digital age, parents must have digital literacy skills that must be able to help them access, analyze, evaluate, and communicate messages in various forms based on digital media platforms and also attain skills of how best they can help their children in using all the most necessary and morally appropriate digital devices.

Parents need information about social media. Specifically, to find out how to use social media. Parents still find it challenging to get information about digital literacy. Limited information resources and the lack of learning facilities for parents are among the causes of parents' low ability to use digital technology.

3.2. Digital Literacy Workshop Model for Parents

Digital literacy training needs to be done so that parents can understand how to use, produce, analyze, and communicate messages through the media. The aim is to increase the role of parents in supervising and assisting children to do activities on social media.

The workshop is a form of education and training to improve the digital literacy of parents. Use of time that is short and dense so that parents do not need to spend a lot of time. The workshop also combines theory and practice so that not only does it provide an understanding of social media, but through direct practical activities, parents will have the ability and skills to use social media. There are several advantages and advantages of digital literacy workshop models, such as:

- The time spent in the workshop is concise.
- Parents get extensive and in-depth theoretical information about the problem being discussed.
- Parents get practical instructions about using digital media.
- Parents are fostered to prepare and think critically and creatively.
- Parents are given guidance to assist children in educating children in the digital age.
- There is assistance for parents in developing digital literacy.

According to Silvana and Darmawan (2018) [37], Socialization conducted to the broader community is the government and intellectuals' responsibility to provide education on media literacy. Media literacy efforts must also be carried out by elements of the population that have excellent knowledge. Based on the results of the analysis, a digital literacy model that is appropriate for parents, in the form of a digital literacy workshop for parents is illustrated below in Figure 2.



Figure 2. Digital Literacy Workshop Model for Parents

Figure 2 is a model of digital literacy workshops for parents conducted through the learning process. The first session is in the form of a material presentation; this stage aims to provide knowledge and understanding to parents about social media. The method used is a discussion with the andragogy approach. The material provided includes:

- Safe use of the internet;
- Getting to know sites and applications that are safe for children;
- I am using social media wisely;
- Understanding the protection features in the application;
- Study guidelines for parents.

Furthermore, the practice session is an activity providing practical instructions on the use of social media that can be applied directly by parents. This activity offers additional parenting skills in using gadgets and social media. In this method, the method used is in the form of a demonstration, where the resource person gives an example in advance, which is then practiced by the participants.

Assistance is a follow-up carried out after the implementation of the digital literacy workshop. Support is carried out by experts and education practitioners who focus on digital literacy issues. Assistance is carried out by utilizing the WhatsApp group for communication. There are two activities in this assistance, such as sharing sessions and consultation for parents. The benefits to be gained from the parents' digital literacy model include the increase in knowledge, skills, and independence in using social media, as well as increased parental supervision of children on social media.

4. Conclusion

Digital literacy for parents is critical because parents are the main actors in developing literacy in the family. The results showed that the knowledge and ability of parents to access and use social media is still relatively low. This is the cause of the lack of parental supervision of children's activities on social media. The low. Forms of parental education and digital literacy can be implemented through a digital literacy workshop program model. Digital literacy workshop models for parents have several advantages, including time-saving, combining theory and practice, as well as assistance for parents, which increases their knowledge and skills in using digital media.

5. Declarations

5.1. Author Contributions

Conceptualization of the paper was initiated by S.N. and A.H.N.; methodology was mostly handled by S.M.; while the training concept and its media for communication was mostly handled by R.J.; meanwhile validation of the entire paper was conducted by W.J.A. in collaboration with all the authors of the paper. The authors have all equally contributed to the funding of this paper. Finally, all authors have read and agreed to the published version of the manuscript.

5.2. Data Availability Statement

Data sharing is not applicable to this article.

5.3. Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

5.4. Ethical Approval

Not applicable.

5.5. Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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