**The Role of Parents in Using Digital Media to Stimulate Early Childhood Language Development**

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**Abstract---** Digital media continues to be produced on a large scale. Digital media can be used with various functions; such as for entertainment, search many information, even has a good impact to various of early childhood development aspects. Digital media users are no longer only dominated by adults but also early childhood is the target of digital media marketing which is very popular these days. Therefore, it is necessary to know how to use digital media to stimulate children's language development. The writing of this article was carried out through a literature study where the study was carried out based on information obtained from various types of literature include scientific articles, books and other literary sources. The results of the analysis found that early childhood who had been exposed to digital media had good language development in both receptive and expressive language development. The type of digital media which often accessed by children are animated videos, audio books, fun language game applications and other educational applications. Language development stimulation occurs naturally with the parental control without a good structured planning, however parental guidance is needed to avoid negative effects for children such as immoral videos, excessive screen time that can damage children's eyes and addicted to the use of digital media for entertainment purposes.

**Keywords:** Digital media, Early childhood education, Parental support, language development

I. **INTRODUCTION**

Language skills development in early childhood are important things that children must have. In learning activities, children are required to be able to communicate so the stimulations are needed. The best way to stimulate early childhood language skills is through playing activities with teachers in educational institutions or parents at home. The development of language skills in children usually occurs through a natural process with the stimulation from adults. Yulsyofriend (2019) stated that there is a regular relationship in early childhood language development by stimulating children to learn listening, speaking, reading and writing. Learning activities start from recognizing words, interpreting words, compiling regular sentences, categorizing syntax and semantics, using predicates for specific purposes and making complex sentences (Goldin-Meadow, 2008).

Children development is influenced by various environmental factors. The risk factor that has the most impact on optimizing aspects of children development is family, so the family socio-economic status has an important role (Brownell dkk., 2016). Children will have language skills according to the rules of the social environment where they live in because they see directly and observe that environment. The early childhood language development have variation type at each age, the size, vocabulary composition, the complexity of the sentence structures, the skills and children styles in communication (Hoff, 2008). The differences of environment have the difference impact on early childhood language development. As previously mentioned, that playing while learning activities are the best method, playing while learning activities must be adapted to environmental conditions. The research by Van Der Westhuizen & Hannaway (2021) explains that playing activities can be done traditionally, however the development of the digital environment has led children play activities...
using digital media facilities. Digital media as one of the facilities that is now growing cannot be
denied, the digital media have a role in supporting early childhood learning activities. Nevertheless,
like the traditional playing activities, it is still necessary to encourage and assist the use of digital
media for playing and learning activities.

Digital media is a tool that can bring new method with various types of devices with very broad
definitions. Digital media is a new tool that is now being developed, including the internet and mobile
devices (Finnemann, 2011). Digital media serves as a supporter of the learning process that continues
to be produced with various innovations to support language development which consists of listening,
speaking, reading and writing content. It can be assisted with a variety of simple and complex
applications. The activity of reading stories by showing digital media such as e-books has been
effective in facilitating early childhood language development. parents are more practical to find a
favorite source to be read for their child. the activity of reading stories using an e-book with a tablet
device in addition to creating stimulation for the development of listening skills and expressing
language, also develop the socio-emotional between children and parents (Tseng dkk., 2012)

The use of digital medias help parents in presenting innovative play activities, for example an
Augmented Reality (AR) technology can stimulate early childhood language development through
reading activities with two-dimensional picture books. (Cheng & Tsai, 2016). The role of parents is
to become communicators to connect children and digital media, to choose what appropriate and
inappropriate. Learning activities do not restrain children with a rigid system, for example by forcing
children to continue reading with printed books because digital technology is now around and cannot
be avoided. In addition, video-based learning also helps parents improve their children's language
skills with a lower cost. Video-based learning facilities are simple, easier for parents to access and
children can repeat watching (Arnold dkk., 1994).

Playing and learning activities using digital media are influenced by various factors. An
environmental system consisting of children, parents, practitioners, affordability of digital media,
routines, controls for children and socio-cultural systems in early childhood supervision. The
experience of stimulation early childhood language development is a related system (Arnott, 2016).
This behavior is a part of the digital system, which is influenced by the preschool education system
which consists of children and practitioners as active agents, the affordability of technology, the
cultural systems, routines and practices of early childhood settings. The children's social experiences
using digital media can not be determined by a single element of the ecological system. Learning
activities using digital media can be done anywhere without knowing the place, time and supervision
(Furió dkk., 2013). Like traditional learning activities, the actions needed are mentoring and selection
of suitable devices and applications which can be accessed by children. Both teachers and parents
need to examine what forms of digital media which are appropriate and suitable for use in developing
early childhood language skills. The technology that is developed and used needs to be tested for its
relevance to development domain that will be stimulated.

Parents and teachers sometimes feel confused about using digital media-based technology in
children's activities (Plowman & McPake, 2013). Stimulation to develop early childhood language
skills by parents using digital media is not an easy thing. Negative content, duration in using digital
media, monitoring, availability of facilities becomes constraint and even have a negative impact on
other aspects of children. There are still many parents who are worried about using digital media at
home. Many differences of opinion from the experts. The opinion of experts who argue that digital
media has a negative impact on children's social and emotional health can not be denied. However,
digital media continues to develop to support life, not only for the education development. The
government has made a regulation about the importance of using digital media or ICT to prepare

Renewable technology devices are not existed in their lives in the past. Naturally, children have high
curiosity towards digital media that is developing at this time. Some parents think that media plays
with physical activity and reading books is better than learning using digital media. However, digital
media can help to improve early childhood development aspects. Therefore, this study is purpose to know the excess and effectiveness of using digital media and the role of parents in using digital media to develop early childhood language skills.

II. METHODS

The research was conducted through a literature study. The data which are needed in this research were obtained from various sources such as e-books, articles and other sources. Literature study research works based on conceptual ideas that are generalized into academic and specific conclusions. Literature review purposes are to provide background information, to establish importance, to demonstrate reliability and to carve out a space for further addition to research. It’s always helpful for the researcher throughout their research work (Parajuli, 2020). Based on the results of the data analysis carried out, it produces information that is relevant to the purpose of the research topic.

Figure 1. Flow chart of research

III. RESULTS AND DISCUSSION

III.1 The use of digital media in the early childhood scope

Early childhood grows up in a different era from their parents and grandparents. Many types of technologies exist at every home, offices and schools. They live in an era of digitalization. Digital media can be found in schools, offices, roads and at every home. When digital media is used wisely, it will have a good impact. For example, for children educational activities. Digital media that is packaged interactively can improve the quality of children's relationships with their parents and their friends. The result of Borzekowski & Robinson's research (Borzekowski & Robinson, 2005) shows that the existence of computer-based digital media and internet networks provide many choices and stimulate children development in many aspects.

Children's playing experience improve children's interpersonal intelligence. Digital media has many types that refer to analog materials, software, educational applications, broadcast and streaming media, television, e-books, internet and other forms which are designed to facilitate children to learn interactively, creatively and involving social environment between children and parents at home (Fred Rogers Center, 2012).
Table 1 Early childhood access to communication and information technology

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>Technology and information access (%)</th>
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<tbody>
<tr>
<td></td>
<td>Cellphone</td>
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<tr>
<td>Area type</td>
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<tr>
<td>Urban</td>
<td>31.24</td>
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<tr>
<td>Rural</td>
<td>26.34</td>
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<tr>
<td>Gender</td>
<td></td>
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<tr>
<td>Male</td>
<td>28.77</td>
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<tr>
<td>Female</td>
<td>29.30</td>
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<tr>
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<td></td>
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<td>&lt;1 year</td>
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<tr>
<td>1-4 years</td>
<td>25.90</td>
</tr>
<tr>
<td>5-6 years</td>
<td>47.68</td>
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<td>Indonesia</td>
<td>29.03</td>
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Sumber: BPS. Susenas Maret 2020 (Maylasari dkk., 2020)

The data shows that the potential for early childhood exposure to digital media is very large. There are two choices that will happen to children, exposed to positive content or negative content. If digital media devices are optimized for developmental stimulation for children, there are 47.68 percent of preschool children who have access to cell phones/HP and 20.09 percent who have accessed the internet for exploring knowledge. Such conditions allow children to develop their developmental potential through the devices which they can use.

The diversity of digital media has also useful for developing one of the important aspects of early childhood development. These aspects are early childhood language development aspect including listening skill, expressing opinions, speaking and writing. Listening and communicating skills are important for children to have. Stimulation is needed as early as possible to get effective results.

Digital media refers to the hardware and the software. Some devices that are often found at home such as; cell phones, televisions, cameras, virtual face-to-face applications, educational videos and many others. In parenting at home, a variety of existing digital media can be used to stimulate aspects of child development, one of which is the aspect of language development. Parents usually use digital media in the form of cell phones and tablets (Sundqvist dkk., 2021). These two devices are commonly used in everyday life which have function for communication between children and their parents who are too busy, many other features that can be accessed for learning activities and entertainment at home. Digital media that are presented intentionally have many impacts for children development aspects (Anderson & Hanson, 2016).

Entering the digital era, stimulation of language development has been carried out using a variety ways which are produced by experts in their fields. Reading books can use interactive ebooks with parents. Parents read using tablet screen with a picture book presentation. A study shows that reading digital-based picture books can increase the interaction of children and parents, increase vocabulary, parent instructions and children's responses can work well. Children's language skills increase with increased instructional support (Chaparro-Moreno dkk., 2017).

Other studies report that learning has shifted towards digitization. Children learn from the dialogical stories, the teacher provides learning videos and then shares them in parental groups to watch with their children. The results of language learning using this method are effective in stimulating children in retelling a dialogical story that has been heard (Gaudreau dkk., 2020). Researchers suggest parental support in learning at home needs to be done. In another study, it was said that the use of digital media without involving any interaction between parents and children can reduce the quality of children's development in speaking, even though cognitively still can develop (Christakis dkk., 2009). This shows that the use of digital media is basically needed as a form to prepare children for digital era, but children are not just free, parents play a role in providing support so that the effectiveness of using digital media can be achieved.
III.2 The role of parents in the use of digital media

The use of technology media is an important infrastructure in growing the principles of learning development. The use of digital media to improve children development needs to be built on a solid foundation and the professionalism of parents in educating early childhood considering the many challenges and opportunities that exist. Parenting and education that are provided by parents is packaged into a program by utilizing digital media at home. The use of online videos is an educational entertainment option that is presented by parents in parenting (Elias & Sulkin, 2017). Parents as the closest people to children have a very important role in stimulating children's language skills. The method which can be made such as reading story books, communicating with children, playing activities together and many other activities that can be done to stimulate children's language development.

The following are strategic steps that parents can take in using digital media to help develop children's language skills:

a. Choose a platform that children like
In selecting the best digital media for children, parents present many options to attract children's attention and still prioritize the educational side. Diverse content in digital media is felt to be able to help children learn, such as educational games to introduce various animals that children can use with parental assistance have increased children's cognitive abilities (Humaida & Suyadi, 2021)

b. Measurement of the contribution of digital media
It is important to know how far the contribution of digital media use to children's language development. Some things that need to be reviewed are what videos that children watch which have a role in increasing children's imagination, increasing vocabulary, and contributing to other aspects.

c. Focus attention
The good impact of media development can provide a lot of information and make it easier for children to learn. However, parents also need to share their focus to see the negative impact that can occur on their children. Parents' lack of digital literacy skills can have a negative impact on children's development, such as being exposed to negative content (Sarwani, 2021). The negative impacts that can expose children include: impaired motoric skills, addiction to watching screens, and reduced play activities between children and parents.

d. Act as a facilitator
Children can be given the freedom to use digital media that has been agreed with parents to be accessed independently. On other occasions, it is necessary to choose digital media that can be used interactively between parents and children so that the child's ability to express language can also be developed. Parents as mediators/facilitators in using digital media. According to mediation theory, parents use various communication strategies with their children so that the negative effects of exposure to digital media received by children are lower (Clark, 2011). Children can also learn to read and write with the assistance of their parents by using media such as letters and numbers learning applications (Elias & Sulkin, 2017).

Parenting in using digital media needs to select, integrate and evaluate the use of digital media devices. When parents use digital media appropriately and intentionally to help stimulate children, digital media will be an effective tool to support children's development and learning. Intentional use requires carefulness, making a good schedule and the duration by the parents. Children need to be given the duration of time restrictions. Based on the age level of children, there needs to be equitable access. Parents need to position themselves as facilitators so that the use of digital media is not overtime. Playing activities in nature environment, interacting with friends, providing interactive tools that can connect what they see and feel from using screens with real life and can build language skills.
The use of digital media cannot replace real interactions in everyday life that are needed by children. The involvement of all the senses is also needed so that children's scientific abilities can also develop properly. The involvement of parents in choosing the right application or device is related to the quality of learning, not just entertain children by providing screen for a long duration. Sometimes parents need to involve children to be creative not only as consumers in the use of digital media, but involve them in creating new works based on a simple technology to increase interaction between children and parents.

In this case it relates to the role of parents as mediating between children and digital media. Digital media mediation is important to be disciplined for children who using digital media. The implementation of digital media mediation allows reducing negative impact and optimizing positive effect from digital media itself.

Discussing about the role of parents in using digital media to stimulate children's language skills is closely related to digital media mediation by parents, because conceptually it is the role of parents in managing and regulating the use of digital media which have a positive impact on children's language development. Parents as managers and mediators in using digital media are very important to reduce negative impacts (Clark, 2011). The role of parents in using digital media is a good action to shape children's daily patterns in using digital media (Wartella et al., 2014). The more types of digital devices with various content that can be accessed very easily are now around parents which both in quantity and quality will affect to the perspective and habits of children in using digital media in their daily lives.

Children's abilities as digital natives allow them to access a variety of digital media content using just one device. Children can access videos, games and webs online (Gentile et al., 2014). Several previous studies have revealed that parents have used digital media strategically as a tool for their children development (Levine et al., 2019) and as a tool for education (Widianto, 2021). Therefore, it is important for parents to develop their cognitive abilities, self-emotional control, more attention and concern for their children, and also a clear division of role between fathers and mothers. As we know that long exposure to screens or time to use digital media has a negative effect on children's cognitive abilities, health and others, so the style of parents in taking a role when using digital media has the potential to influence the final result in using digital media itself.

Mediation in the use of digital media by utilizing internal networks, this will be good if it is supported by the strategies used by parents. Such as practices and techniques based on surrounding cultural values. These values can be influenced according to the conditions of a particular society whether individualism or collectivism (Schwarz et al., 2005). However, of course, this cultural influence will greatly affect the role of parents in using digital media with their children. The role of parents includes interacting with children, either being actively involved or just being a facilitator for children in using digital media. Mediation theory suggests that parents use different two-way communication strategies to reduce the negative impact of using digital media (Clark, 2011). Restrictive mediation itself prioritizes parental control over the duration of digital media use by children. Active mediation is slightly different, namely mediation that is normative or instructive, where parents play a very active role, always controlling children in choosing content directly and explaining what is good and what is not. Meanwhile, co-viewing mediation is where parents and children watch and access digital media together so that the shows or content used by children are more controlled.

### III.3 The constrains to using digital media to develop early childhood language skills

Digital literacy skills need to be improved as an effort to choose, use, connect and determine the accuracy and benefits of digital media that chosen for children. Children as social beings still need adults in this case are parents as mentors or active mediators in order to guide them safely in the use of digital media in this century (Donohue & Schomburg, 2017).
Children will essentially imitate what they see in everyday life. Parents need to be role models, using digital media such as telephones sufficiently according to their needs. There needs to be an agreement to limit the use of cellular phones and other digital media when parents are with their children and focus on children in using optimal digital media. However, the rapid development of technology is not always in line with the abilities of parents. Parents with low incomes have very little opportunity to be able to access and use digital media technology (Dougherty dkk., 2014). This condition makes children from low-income families have low opportunities to use digital media as a learning tool, to develop may aspects of self-development and to compete in the future with the development of technology.

There are at least 3 main factors for the gap in access to digital media that occurs in Indonesian society. Hadiyat (2014) revealed that the aspects of infrastructure readiness and service quality are not yet optimal, there are no regulations for infrastructure development and the development of broad public understanding and the economic condition of the community is still weak. Even though digital technology devices have arrived, regulations on infrastructure development and the readiness of parents to face the digital era have not been optimally to use digital media as a source of home learning.

The use of digital media devices that are selected and adapted to the needs of children can improve children's development (Gentile & Walsh, 2002). The low ability of parents to take advantage of the use of digital media can affect the selection of digital media that is not appropriate for children. Violence transmitted by digital media still occurs through television, films, video games, music and other applications that can affect children's development (Fuld dkk., 2009). Television at home is reported to have many negative impacts on children's development. The current viewing trend has changed to applications that offer many choices, such as YouTube and similar platforms. The media violence that occurs makes children aggressive, has nightmares, makes violence to be a common thing and has other bad effects. The use of digital media must be selected by parents, to encourage children to use digital media wisely and proactively in choosing the right program to serve to children.

IV. CONCLUSION AND RECOMMENDATION

The many choices of digital media that are present are not fully accessible to the public, gaps still occur everywhere. There are at least three factors that cause gaps in the development of digital media as a source of early childhood learning in parenting. Some of the factors for the unequal access include; infrastructure support, service quality and the family's economic condition.

Parents choose digital media devices as a source of entertainment and learning activities for their children. The more popular devices in use today are cellular phones, tablets and the internet. These three devices have replaced television as a favorite digital media. Content on cellular phones and tablets with internet network support provides more options for parents to present their children's educational content at home in learning activities using digital media.

There have been many studies related to the negative and positive impacts of the influence of digital media for early childhood language development. The researcher suggests that this research can be used as a guide to expand the topic of future research. The future research related to the use of digital media types, good content to support early childhood learning activities and what are the appropriate mentoring procedures in using digital media as learning media both in educational institutions and at home.

V. ACKNOWLEDGMENTS

Profound thanks to Dr. Ernawulan Syaodih, M.Pd who has guided, provided input and direction to the author in completing this article.
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