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THE IMPORTANCE OF EQUATING PARENT'S PERCEPTIONS WITH CHILDREN'S HOBBY IN USING ANDROID-BASED APPLICATIONS AS A LEARNING MEDIA

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Abstract

The advancement of technology makes the emergence of various Android-based applications ranging from games to learning media. These applications have become part of the daily lives of children, which cannot be prevented, and it goes naturally. Therefore, children aged 7-8 years need special attention and assistance by parents so that type of children's favorite application will be known. This research used qualitative method. To collect data, samples were selected using random sampling. This research aims to (1) review the learning media, namely Android-based applications, which are favored by children; and (2) know parents' perception of the learning media favored by children. The results showed that the importance of equating parent's

perception with children's hobby, due to the children's interest to the application as a new media in learning, can provide learning motivation for children. The importance of equating perceptions between parents and children, due to the children's interest to the application as a new media in learning, can provide motivation and self-development for children. This research is expected to be developed to the stage of researching the education administrator policy toward the correlation with the government policy and the ongoing curriculum.

Keywords

Learning Media, Android-based Applications, Children's Perception, Parent's Perception, Students' Learning Achievement

1. Introduction

We live in a technologized society and we are placed in the situation of technologisation of education (Ignatyeva, 2015). Today smartphones are changing our way of work, study and also daily act (Nachiketa et.al, 2013). Further, smartphones has changed the life of everyone (Kathuria & Gupta, 2015). Advancements in information technology (IT) have led to the development of various applications that help in better understanding of concepts, phenomenon, and theories by students (Bakırcı, Bilgin, & Simsek, 2011; Koong & Wu, 2011). Technological development has created breakthroughs in learning (Astra, et.al, 2015). Mobile information and communication technologies have become commonplace in recent years. The evolution of smartphones in particular has allowed users to utilize applications whenever and wherever they want (Dani & Vanishree, 2013; Pascu, White, Beloff, Patoli, & Barker, 2013). The technologies become more portable, affordable, effective and easy to use (Aseniero et.al, 2013). Interactive technology; IT, will be a facilitating factor for the child within this learning process. IT has become common in everyday life. Children, even the youngest, have access to and use a variety of technical devices and information technologies (Stalberg et al, 2016). The existing studies suggest that if technology is interwoven comprehensively into pedagogy, it can act as a powerful tool for effective learning of the elementary students (Chauhan, 2017). Today, various forms of communication media are widely and increasingly present in children's daily lives worldwide, especially mobile technologies such as smartphones, laptops, and tablets. Young children today revel to use digital interactive technologies as one of the dominant activities in their play experiences (Lee, 2015).

The ability to understand that two people might interpret the exact same event in different, yet equally plausible ways is a foundational milestone in children's social-cognitive development. Although children come to understand that individuals can hold false beliefs about an object or an event by 4 or 5 years (Wellman, Cross, & Watson, 2001), they do not seem to understand that individuals actively interpret and construct their own beliefs about an event, and that each of these interpretations can potentially be a true belief, until about 6 or 7 years (Carpendale & Chandler, 1996; Lagattuta, Sayfan, & Blattman, 2010; Pillow & Weed, 1995). Teaching of media (sign) literacy should start even earlier, in preschool and kindergarten years (Diergarten, 2017). The importance of parental guidance for the social development of child psychology. These developments depend on the parents' control of the child's passion. If the lack of parental guidance, then cause negative things in the resulting from the interaction of children with modern technology is growing rapidly. Rhodes (1994) argued that parents must have an enormous influence on the social development of children and adolescents. Supportive from older adults, or mentors, ranging from neighbors and teachers to extended kin, may contribute to resilience among youth who are living in developmentally hazardous settings and global technology. Howard from Aroldi and Vittadini (2017) in particular, families who have abused or neglected children may contact them with unpredictable outcomes, and the immediacy of social media, without parents' support, can undermine children's ability to decide or evaluate what kind of contact they are ready for.

Multimedia-assisted teaching should include the following four interactive functions: reflection, guidance, feedback and interactivity. These techniques help to decrease the young learners' feelings of disorientation and frustration in learning (Kao, 2016). As new modes of delivery of learning content such as computer-assisted learning systems have become increasingly popular, research into these has also identified the benefits of tailoring learning content to learning styles (Soflano, Conolly & Hainey, 2015). Laptops are being developed for children as young as five. Smart phones are now in the hands of children as young as ten (Hatch, 2011). The introduction of Android tablets in the classroom does not have a significant negative impact on sixth-graders' reading comprehension (El-Mouelhy, 2013).

Computer games and video games have become very popular in children and adolescents' life and play a prominent role in the culture of young people (Wu, 2012). Bourgonjon (2011) in research about digital game-based learning, the likely negative perceptions

of parents are often enlisted as a barrier toward the adoption of games in classroom settings necessary for children to form their own interests, skills, and identities. The multiple-forms approach acknowledges that parental pressure, intrusiveness, and domination assault children's individuality; there is thus a strong rationale for believing that when parents are coercive, they undermine children's psychological development (Grolnick & Pomerantz, 2009). Some parents were uncertain and took the opportunity to discuss some of their concerns. Their comments referred to mobile phones and computer games, with some concerns about the impediment to social interaction and exposure to inappropriate content (Plowman et al, 2010).

Parents play in their child's education, and research on parents' involvement in school, and the relationship between schools and parents, has argued that it is essential for promoting school achievement (e.g. Mattingly et al., 2002). The parent who maintains a dynamic balance between the dispositions of acceptance and guidance will remain open to the possibility that the unwanted workings of a child's mind and body may reveal themselves constitutive of something valuable, or at least as something meaningfully extraordinary about that particular child-to-be (Fox, 2008). Although dual- and single-earner boys and girls do not differ in the amount of monitoring they receive from their parents, dual-earner boys may be differentially susceptible to experiencing problems with school achievement or conduct in the face of poor parental monitoring (Crouter et al, 1990). Parental involvement in developing the individualistic plans is pertinent to the success of both their children's education and the plan its self (MacKichan & Harkins, 2013). Turnbull et al. (2008) found that mothers' use of elaborative talk, in which elements of a picture book regarding false belief understanding were discussed, predicted children's false belief understanding above and beyond mothers' use of mental state terms. Taken together, these findings suggest that the significance of mental state terms in social-cognitive development might depend on their conversational use. These contemporary changes indicate that family communication patterns are transforming, which puts further emphasis not only at the child as an actor in its own media consumption but also a shift towards focusing on the contextual role of the family and parents in the influence that media can assert on younger children (Sandstig, 2013).

Previous study has stated that the obstacle encountered by instructors during 2013 learning curriculum was the lack of thematic integrative-based learning media for elementary school pupils. Ideally, the learning media curriculum should be attractively, and efficiently

adorned and in conformity with advanced technology development. Thus, it is necessary to adopt the concept of an android-based interactive application development on thematic learning curriculum for primary school pupils (Prabowo et al, 2016). Interactive Multimedia Learning Android-based Application have a varieties of roles in the teachers teaching activities in school, that are (1) Arouse students' motivation, (2) Explain materials learning in detail the and concrete, (3) As a Mobile learning, (4) Easy to evaluate for teachers and parents, and (5) Media that used for delivering message which is correlated with norm and ethic (Prameswari et al, 2016). The parental acceptance in the application of interactive multimedia based on android applications depends on the evaluation of student learning. Evaluation is, in turn, influenced by opinions of their children, the teachers and experts (Bourgounjon, 2011). Several previous studies have not dealt with parent's perception towards Android-based application liked by the children. In the previous research, Martono and Nurhayati (2014) have discussed the implementation of Android as a flexible learning system. Other than that, Jengathe and Rojatka (2015) have done the research about the usage of Android as learning system. But, from many previous preferences or literature, none of them are focusing in the research on equality of parents and students perceptions in terms of a good passion for children. Therefore, this study aims at: (1) reviewing the learning media, namely Android-based applications, which are favored by children, (2) knowing the perception of parents to the learning media favored by children.

2. Review Literature

2.1 Children's Development and Parents' Mindset

Childhood in this understanding is a social form or space, which is imposed on or taken in possession by children – in principle from birth. At a certain age defined by a given culture, children leave this form or space and pass it on to new cohorts of children (Qvortrup, 2009). Parents indicating a positive opinion explained benefits such as improvement of children's motor and cognitive skills, adaptation to technology, and improvement of visual memory. Parents with negative opinions mentioned how smartphone usage can cause physical or mental problems in the future: they fear that their children will be introverted, have an isolated life, or be affected by harmful radiation (Genc, 2014).

2.2 Learning Media

The definition of media in teaching and learning tends to be interpreted as graphics tools, photographic, or electronic that are meant to capture, process, and reconstruct the visual or

verbal information (Azhar Arsyad, 2010: 3). Multimedia learning is a form of learning supported by different sources of information (e.g. text and graphics) being handled jointly in order to understand and memorize a given content (facts, concept, procedure). According to Mayer (2003:125), the term instructional media has been defined as the physical means via which instruction is presented to learners. Under this definition, every physical means of instructional delivery, from the live instructor to the textbook to the computer and so on, would be classified as an instructional medium (Reiser, 2001).

2.3 Android-based Application

A new trend in e-learning nowadays is known as Mobile Learning the use of portable media such as Smartphone either using the Android system. Mobile learning is defined as learning across multiple contexts, through social and content interactions, using personal electronic devices. A form of distance education, m-learners use mobile device educational technology at their time convenience (Crompton, 2013:3). The use of Mobile Learning to support the teaching-learning process is considered important to add the flexibility in the activity of teaching and learning. Thus, the learning process can be done anywhere and anytime (Martono & Nurhayati, 2014). Interactive Multimedia Learning Android-based Application have a varieties of roles in the teachers teaching activities in school, that are (1) Arouse students' motivation, (2) Explain materials learning in detail the and concrete, (3) As a Mobile learning, (4) Easy to evaluate for teachers and parents, and (5) Media that used for delivering message which is correlated with norm and ethic (Prabowo et al, 2016).

3. Methodology

3.1 Samples and Sampling Procedures

To collect data, samples were selected using random sampling from 9 primary schools (SD) in Surakarta which have implemented the 2013 Curriculum for more than 2 years, including (1) SD Negeri Begalon II, (2) SD Negeri Kratonan III, (3) SD Negeri Kleco I, (4) SD Muhammadiyah 24, (5) SD Muhammadiyah (Special Programs), (6) SD Warga, (7) SD Al-Irsyad, (8) SD Bayan, and (9) SD Negeri Bulukantil. Respondents consist of 5 students taken from each school, as well as their parents. Therefore, the total number of respondents is 90 comprising 45 Grade 1 students and 45 parents. The research was carried out to students during 2016 midterm test, while to parents when they received 2016 mid-semester reports. Parents visited school to receive the reports, giving the researcher great opportunities to interview.

3.2 Measures

The present study belongs to qualitative research. It leads to a number of methodological approaches with regards to such theoretical principles as phenomenology, hermeneutics, and social interaction, and is conducted through data collection method and nonqualitative analysis to find out social relatedness and to describe reality based on respondents' statement (Sarantakos, 1998:6). The research instrument includes questionnaire distributed to students and parents. Students' personal data and profile in questionnaires were obtained from schools' data and inserted by researcher. Meanwhile, parents were asked to fill the questionnaires.

4. Data Analysis

4.1 General Overview of Respondents

Respondents comprise 45 Grade 1 students and 45 parents from 9 primary schools in Surakarta. Questionnaires were distributed using people-assisted-method. Respondents were assisted in questionnaire completion and in structured interviews to avoid unanswered and unreturned questionnaires. The structured interviews were successfully conducted due to the face-to-face nature.

Table 4.1 Profile of Student Respondents

Sex	The Number of Respondents
Male	18
Female	27
TOTAL	45
Age (Years Old)	The Number of Respondents
7	39
8	6
TOTAL	45

The table above shows that the questions in this research are divided into two criterions: gender and age of students. Respondents that are included in gender criterion divided into two groups, which are boy and girl. The total amount of respondent is 45 children, with the details: 18 boys and 27 girls. The interval that is used in the age criterion is about 7-8 years old, with the details: 39 respondents are 7 years old children and 6 other respondents are 8 years old children. So, the total amount of respondents is 45 children.

Table 4.2 Profile of Parent Respondents

Sex	The Number of Respondents
Male	5
Female	40
TOTAL	45

Age (Years Old)	The Number of Respondents
10-19	-
20 – 29	5
30 – 39	27
40 – 49	13
> 50	-
TOTAL	45

Educational Background	The Number of Respondents
Primary School	-
Junior High School	1
Senior High School	11
Diploma	5
Bachelor Program	28
Others	-
TOTAL	45

All of the tables above explain about the profile of parent respondents. Based on the gender criterion, there are 5 man respondents and 40 women respondents, so the total amount of respondents is 45. Based on the age criterion, there are 5 respondents, which are included in the interval age of 30-39 years old, and 13 respondents are included in the interval age of 40-49 years old. There are no respondents that are included in the interval age of 10-19 or more than 50 years old. Based on the education background of the parents, 1 respondent has graduated from Junior High School, 11 respondents has graduated from Senior High School, 5 respondents has graduated from Diploma Program, and 28 respondents has graduated from Bachelor Program.

4.2 Interviews with Student Respondents

The total number of respondents is 45 students. Below are the results of interviews and questionnaires.

Table 4.3 Phenomenon of Android-based Game and Edugame Application on Circle of Students

Indicators	Frequency	Percentage
Recognized Android game applications (“Have you ever seen people playing games on their mobile phone?”)	42	93.3%

Have ever used Android game applications (“Have you ever played games in your mobile phone?”)	39	86.7%
Be fond of Android game applications (“Do you like playing games on your mobile phone or tablet?”)	39	86.7%
Like games due to attractive characters and colors (“What makes you are interested in trying to play games?”)	27	60%
Like adventure games (What kind of games do you like?)	25	55.5%
Knew games from friends (“Who introduced you to the games for the first time?”)	37	82.2%
Play games on personal smart phone (“Whose mobile phone do you play games with?”)	30	66.7%
Knew Android-based educational games (“Have you ever found educational games, like “ <i>Aku Bisa Membaca</i> ”, or multiplication/ guessing games?”)	41	91.1%
Have ever played Android-based educational games (“Have you ever tried educational games?”)	32	71.1%
Like learning using media of Android-based interactive educational games (“Do you like learning using educational games in your mobile phone?”)	32	71.1%

The results of interviews indicate that 93% of students have known Android game applications, 86.7% have ever played Android game applications, 86.7% like the applications, 60% of students like the applications due to attractive characters and colors, 55.5% are fond of adventure games, 82.2% knew the games from their friends, 66.7 % play games using personal smart phone, 91.1% have known Android-based educational games, 71.1% have ever played Android-based educational games and like learning using media of Android-based interactive educational games. Hatch points out that smartphones are now in the hands of children as young as ten (Hatch, 2011). In fact, the development in technologies nowadays causes 7-8 year old children to be familiar with interaction using smart phone for the purposes of learning and playing.

Table 4.4 *Students’ Interaction with Android-based Game and Edugame Applications*

Indicators	Frequency	Percentage
Play games every day for more than an hour (“How long do you play games in a day?”)	25	55.6%
Play games without parental guidance (“With whom do you	30	66.7%

play games?")		
Play games after school ("When do you usually play games?")	35	77.8%
Parents restrict interaction with Android-based game and <i>edugame</i> applications ("How do your parents react to your playing games?")	30	66.7%
Parents forbid their children to learn using Android educational games ("How do your parents react when finding you learning using educational games?")	28	62.2%
Play the game when parents are not at home so children will not get caught (What will you do if your parents not allow you to play games?")	37	82.2%

In addition, the results of interviews demonstrate that 55.6% of students play games for more than 1 hour every day, 66.7% play games without parental guidance, 77.8% play games after school, 66.7% are restricted by parents to interact with Android-based game and *edugame* application, 62.2% are not allowed by parents to learn using Android *edugames*, 82.2% play games when parents are not at home so they will not get caught. The existing studies suggest that if technology is interwoven comprehensively into pedagogy, it can act as a powerful tool for effective learning of the elementary students (Chauhan, 2017). But parents with negative opinions mentioned how smart phone usage can cause physical or mental problems in the future: they fear that their children will be introverted, have an isolated life, or be affected by harmful radiation (Genc, 2014).

Table 4.5 *Students' Favorite Contents of Educational Game Applications*

Indicators	Frequency	Percentage
Like Android-based educational game applications in the forms of stories with pictures ("What kind of educational games do you like?")	20	44.4%
Like Android-based educational games due to attractive and unborning visualization (What makes you like them?")	27	60%

Like game visualization with bright colors (What color style do you think a good game should have?)	32	71.1%
Like educational game applications completed with audiovisual appearance and animation (“What are your favorite educational games like?”)	35	77.8%
Educational games are easy to play in spite of their English instruction (“How about games with English instruction?”)	31	68.9%
Android-based educational game applications give more spirit to learn (Which gives you more spirit to learn, only books, or both books and mobile educational games?)	33	73.3%

The results of interviews also denote that 44.4% of students like Android-based educational game applications in the forms of stories with pictures, 60% like Android-based educational game applications due to their attractive and unborning visualization, 71.1% like game visualization with bright colors, 77.8% like educational game applications completed with audiovisual appearance and animation, 68.9% think that educational games are easy to play in spite of their English instruction, 73.3% find that learning using Android-based educational game applications gives them more spirit to learn. Multimedia-assisted teaching should include the following four interactive functions: reflection, guidance, feedback and interactivity. These techniques help to decrease the young learners’ feelings of disorientation and frustration in learning (Kao, 2016). As new modes of delivery of learning content such as computer-assisted learning systems have become increasingly popular, research into these has also identified the benefits of tailoring learning content to learning styles (Soflano, Conolly & Hainey, 2015).

Table 4.6 *Content of Students’ Favorite Educational Games Application*

Statement	Student Respondents
The most favorite Android game application (“What game do you play on your mobile phone?”)	“I love playing Sonic everyday. Sometimes I play for a while”, respondent 1.2, Student, 8 years old; “The best one is Roblox”, respondent 1.11, Student, 8 years old; “I like Roblox”, respondent 1.15, Student, 8 years old.
The most favorite Android educational game application	“I get used to play Cerita Interaktif”, respondent 1.3,

<p>(“What educational game do you like the most?”)</p>	<p>Student, 7 years old; “Anak Cerdas because the contents are complete”, respondent 1.19, Student, 8 years old; “Permainan Cerita. It is an attractive game”, respondent 1.20, Student, 8 years old.</p>
<p>Who taught you to play the game?</p>	<p>Respondent 1.10, Student, 8 years old; “I learn by myself”, Student, respondent 1.18, 7 years old; “My brother did”, Student, respondent 1.5, 7 years old.</p>
<p>How to deal with English instruction? (What about games with English instruction?)</p>	<p>“I handle it by myself”, respondent 1.1, Student, 7 years old; “I look up my mobile dictionary to find out the meaning”, respondent 1.13, 8 years old, “I ask friends”, respondent 1.40, 7 years old.</p>
<p>Thing that attracts students to play the Android-based game application (What makes you like the game?)</p>	<p>“Great display” , respondent 1.33, Student, 7 years old; “Most of my friends play the games”, respondent 1.9 Student, 7 years old; “The games have good characters”, respondent 1.44 Student; 8 years old.</p>
<p>Thing that attracts students to play the Android-based educational game applications (What makes you like the game?)</p>	<p>“Animation and Audio”, respondent 1.25, Student; 8 years old. “The games are not boring”, respondent 1.37, Student, 8 years old; “I do not get tired. Writing a lot makes me tired”, respondent 1.19, Student, 7 years old.</p>
<p>Thing that students do when they are not allowed to use educational game applications (“What will you do if you are not allowed to play educational games?)</p>	<p>“I play games when parents are not at home”, respondent 1.11, Student, 8 years old; “I will keep playing”, respondent 1.40, Student, 7 years old; “I feel sad if my parents are angry with me”, respondent 1.32, Student, 7 years old.</p>
<p>Educational games recommended by parents (What educational games do your parents want you to use?)</p>	<p>“Mari Berhitung”, respondent 1.6, Student, 7 years old. “Kumpulan soal”, respondent 1.45, Student, 8 years old; “Belajar Bahasa Inggris “</p>
<p>Students’ responses on educational games recommended by parents (Do you like the game?)</p>	<p>“So so”, respondent 1.24, Student, 7 years old; “Less good. I prefer animated stories”, respondent 1.44, Student, 8 years old; “I prefer educational games”, respondent 1.29, Student, 7 years old.</p>

Based on the results of interviews, it can be concluded that the most favorite Android game application for students are Sonic & Roblox games, with the average age of users is an 8-year-old student. Meanwhile, the most popular Android-based educational games for students are

“Cerita Interaktif” and “Anak Cerdas”. The data obtained shows that most students say nobody teaches to play the game because it is their own desire to play the game and there are also students who are taught by his brother. To deal with English game instruction, students look up mobile dictionary on their smartphone to find out unknown game instruction. Moreover, students are more likely to try to find the purpose of the game instructions by themselves. However, there are students who ask their friends to be able to operate it. Most of students like to play the Android-based educational game applications because it has a great display, good characters, and most of their friends play the games. Meanwhile, many parents do not allow students to use educational game applications. Most students are sad and eager to play again the next day. Parents recommend their children to play educational games such as “Mari Berhitung”, “Kumpulan Soal”, and “Belajar Bahasa Inggris”. Therefore, students’ responses on educational games recommended by parents are students are feeling less interested, students think that educational games recommended by parents are less good, students prefer animated stories, and students prefer educational games. The importance of parental guidance for the social development of child psychology. These developments depend on the parents' control of the child's passion. If the lack of parental guidance, then cause negative things in the resulting from the interaction of children with modern technology is growing rapidly (Rhodes, 1994).

4.3 Interview with Student’s Parent Respondents

The total number of respondents is 45. Below are the results of interviews and questionnaires.

Table 4.7 *Phenomenon of Android-based Game and Edugame Application*

Indicators	Frequency	Percentage
Knew children like Android-based games	42	93,3%
Knew Android-based educational liked by children	33	73,3%
Thought Android-based educational games is not appropriate for children	31	68,9%
Thought Android-based educational games is not appropriate as learning media because it doesn’t fit the school’s curriculum	36	80%

The results of interviews also denote that 93% of parents know that children like Android application. 73.3% of parents know Android-based educational games liked by children. 68,9% of parents thought Android-based educational games is not appropriate for children. Meanwhile, 80% of parents thought that Android-based educational games are not appropriate as learning

media because it doesn't fit the school's curriculum. Bourgonjon (2011) in research about digital game-based learning, the likely negative perceptions of parents are often enlisted as a barrier toward the adoption of games in classroom settings necessary for children to form their own interests, skills, and identities.

Table 4.8 *Parent Support for Children's Interest on Learning using Android Educational Games*

Indicators as questions and answers	Frequency	Percentage
Know children play games everyday	12	26.6%
Parents restrict interaction with Android-based game and edugame applications	37	82.2%
Android educational games has a negative effect for children	39	86.7%
Negative effect of using Android educational games is students forget time for learning	33	73.3%
Forbid children to learn using Android educational games	28	62.2%
Suggest children to learn using teachers' materials in the school	40	88.9%
Allow children to learn using Android educational games as recommended by parents	36	80%

The results of interviews denote that 26.6% of parents know that their children play games every day, 82.2% of parents restrict children to have interaction with Android-based game and edugame applications, 86.7% of parents think that Android educational games has a negative effect for children, 73% of parents think that a negative effect of using Android educational games is students forget time for learning. In addition, 86.7% of parents forbid children to learn using Android educational games, 88.9% of parents suggest children to learn using teachers' materials in the school, and 80% of parents allow children to learn using Android educational games as recommended by parents. The multiple-forms approach acknowledges that parental pressure, intrusiveness, and domination assault children's individuality; there is thus a strong rationale for believing that when parents are coercive, they undermine children's psychological development (Grolnick & Pomerantz, 2009).

Table 4.9 *Parents' Perception of the Appropriate Learning Media for Children*

Indicators	Frequency	Percentage
Think that book and material given by teachers in the school as the best learning media for children	39	86.7%
Think that textbooks are the best media to support learning in the school	38	84.4%

Think that textbooks from school are enough without the need for additional learning media	35	77.8%
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Based on the results of interviews, it showed that 86.7% of parents think that book and material given by teachers in the school as the best learning media for children, 84.4% of parents think that textbooks are the best media to support learning in the school, and 77.8% of parents think that textbooks from school are enough without the need for additional learning media.

Table 4.10 Parents' Perception of the Appropriate Learning Media for Children

Statements	Parents Respondents
The most favorite Android-based game applications liked by your children	"Forgot the name, it's in English and difficult. I don't know, He usually play cartoon application", respondent 2.2, Parent, 30 years old; "Adventure, pretend there is money and can buy things. If children are playing, they are calm", respondent 2.11, Parent, 37 years old; "My son is addicted to Roblox games", respondent 2.15, Parent, 37 years old.
The most favorite Android-based educational game applications liked by your children	"Anak Pintar contains the counting exercise. It can support learning Mathematics in the school", respondent 2.3, Parent, 33 years old; "Belajar Membaca, my child has not been so fluent in reading" respondent 2.19, Parent, 35 years old; "Multiple-choice questions, such as a collection of school exam questions, so the child knows what kind of exams will be.", respondent 2.20, Parent, 36 years old.
Thing that attracts your children to play the Android-based game applications	"Yes, he always follows everything liked by his friends", responden 2.33, Parent, 35 years old; "Just like his friends", respondent 2.9, Parent, 29 years old; "The games have good characters, for example Minecraft, he must like it", respondent 2.44, Parent; 8 years old.
Thing that attracts your children to play the Android-based educational game applications	"Many types of games so he does not get bored", respondent 2.25, Parent; 36 years old. "Having many series makes children curious about the new one", respondent 2.37, Parent, 33 years old; "Accompanied by many interesting pictures", respondent 2.19, Parent, 38 years old.
Thing that children do when you forbid them to use Android-based educational game applications	"My son expressed disagreement, but in the end my son obeyed", respondent 2.11, Parent, 29 years old; "Do not want to do homework", respondent 2.40, Parent, 30 years old; "Usually my child asked me why he should not play this game", respondent 2.32, Parent, 45 years old.

Educational games recommended for your children	“Mari Berhitung”, respondent 2.6, Student, 7 years old. “Kumpulan soal”, respondent 1.45, Student, 8 years old; “Belajar Bahasa Inggris “
Children’s responses on educational games recommended by parents	“My child likes it”, respondent 2.24, Parent, 37 years old; “My son prefers his choice, but I always try to get him to learn by using my recommendation app”, respondent 2.44, Parent, 28 years old; “My son did not like it very much at first, but he gradually got used to it”, respondent 2.29, Parent, 33 years old.

Based on the results of interviews with parents, it can be concluded that the most favorite Android-based game applications liked by their children is “Roblox”. Some parents only knew adventure game and the others forgot the name of the game. According to parents, the most favorite Android-based educational game applications liked by their children is “Anak Pintar”. It contains the counting exercise, reading exercise, and interactive test”. According to parents of students, most of their children like Android-based game applications because they are affected by his friends who mostly play it. Moreover, the children like the games because it has good characters. Parents have an opinion that most of their children like Android-based game applications because it has many types of games, series, and interesting. The results of interviews denote that most of children asked parents why they should not play Android-based game applications. In addition, children expressed disagreement, although finally they obeyed parents’ command. There are also students who do not want to do homework if their parents forbid them to learn using Android educational games. Educational games recommended by parents for children are “Mari Berhitung”, “Kumpulan soal”, and “Belajar Bahasa Inggris”. In general, parents give respond that their children like educational games recommended by them. Some parents try to get their children to learn by using recommended games application and their children are accustomed to it.

Rhodes (1994) argued that parents must have an enormous influence on the social development of children and adolescents. Supportive from older adults, or mentors, ranging from neighbors and teachers to extended kin, may contribute to resilience among youth who are living in developmentally hazardous settings and global technology. Howard from Aroldi and Vittadini (2017) in particular, families who have abused or neglected children may contact them with

unpredictable outcomes, and the immediacy of social media, without parents' support, can undermine children's ability to decide or evaluate what kind of contact they are ready for.

5 Result and Discussion

Most of the first grade students of primary school recognize and like Android-based game applications, whether games or educational games. The increasing number of applications from abroad by using English instructions does not make students find it difficult to adapt. To play the game, it needs intelligence and creative thinking to get through each level. Especially, educational games that insert lesson content such as reading, arithmetic, and stories such as in the school lessons. Games on Android application also require students to get to know the basic of information and technology (IT), starting from downloading, installing, and operating the applications. These experiences are able to provide positive lessons for children that they do not get during school.

Most parents really know the children's interest in playing Android application. Moreover, they are aware of the benefits and potential of educational games, but are unable to utilize them for children's learning. Most parents are not able to keep pace with current technological developments. It proves when they cannot name the most favorite Android-based game applications liked by children. More detailed interviews conclude that parents do not understand how to operate Android-based game applications because some of them are in English.

The crucial thing is that there is a difference between parents' and students' answers about the most favorite Android-based game applications liked by children. Most students love interactive animated stories, but parents tend to feel that children prefer a collection of school exam questions. Parents feel the Android-based educational game application is the most appropriate game in supporting children's learning to improve his achievements in school. Most parents always feel that educational games recommended by them are best for their children without realizing that it only makes the child unmotivated to learn. That is the importance of equating perceptions between parents and children, due to the children's interest to the application as a new media in learning, can provide motivation and self-development for children.

The limitation in this research is only focusing in equation of parents and students perception about in terms of a students' penchant for Android. Furthermore, this research is

expected can be developed to the stage of researching the education administrator policy toward the correlation with the government policy and the ongoing curriculum.

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