UTILIZATION OF SI COVID APPLICATIONS BASED ON ANDROID AS LEARNING MEDIA TO PREVENT THE SPREAD OF COVID 19

Rafika Bayu Kusumandari[1*], Istyarini[2]

Abstract

This study aims to determine the effectiveness of Si Covid as a Covid-19 learning medium for early childhood. Referring to the objectives to be achieved, this research was designed with a qualitative descriptive method. The results of the study are: The covid application which has an attractive and attractive appearance, makes children like to learn about covid 19. Children like the covid application because it looks attractive and attractive so that children feel he is playing not learning because early childhood education programs philosophy is a place to play, a playground. However, not all children have their cellphones, the cellphones owned are owned by their parents so the implementation of the research adjusts the free time of parents (who work in the fields and those who work in an office).

Keywords: Si Covid, Aplication based Android, Covid-19, early childhood

[1*]Universitas Negeri Semarang, Semarang, Indonesia.
[2]Faculty of Education, Universitas Negeri Semarang, Semarang, Indonesia.

Email: [1*]mbakfika@mail.unnes.ac.id

1. Introduction

Learning media is a tool in the teaching and learning process that is used to stimulate the thoughts, feelings, attention, and abilities or skills of learners through communication activities, and so that it can encourage the learning process. as defined by Briggs (1977), is a tangible medium for disseminating educational information, such as books, films, and videos. According to Clark (1994), learning media is a medium of communication in print and view-hearing and hardware technology. In its development in educational activities the media is used as a learning resource that can provide a real understanding for students, the type of media that is widely used in learning activities is media with the type of multimedia.

Along with the development of today's technology, many advanced technologies created have made changes in human life in various fields. The development of information technology today has reached all aspects of people's lives. Currently, the form of information technology application that is in great demand by the public is a smartphone. A smartphone is a mobile device equipped with an operating system like a computer. Smartphones can implement various forms of multimedia as well as computers, only the advantage is that smartphones have high mobility and can be operated more effectively. The high number of smartphone users among students is not followed by the teacher's ability to use smartphones as a learning medium. In the use of smartphones, in general, teachers do not have knowledge related to their use in the field of education, currently, the use of smartphones is only a communication tool and social.

A smartphone is a mobile phone device developed by implementing a computer-based operating system (Android Developer, 2012). The operating system used on Android operating smartphones developed by Google™ and iOS it was coined by the Apple™ computer company. Open source on Android makes it possible for developers or developers to create various application features according to the needs of their users (Bergvall-Kåreborn & Howcroft, 2013). The development of smartphones to date is not only limited as a communication tool, but currently smartphones are widely used as learning media. Given the high use of smartphones by students, teachers should facilitate students' using smartphones. As a learning support media, by using smartphones students can build their competencies dynamically. The use of smartphones as learning media can also be applied at the level of early childhood education. Teachers are required to be able to develop the ability to use

technology in making representative learning media as supporting media in the learning process. Using mobile tools for creating learning aids and materials becomes an important part of adaptive learning. An e-learning environment can be used for tutoring large and heterogeneous groups of students, without the limitations of time and place (Sotiropoulos et al., 2019). The development of learning through mobile devices can increase the effectiveness and efficiency of student learning. The vast advantage of mobile devices is the fact that they are portable. That means, learning does not have to be restrained in the classroom, especially when the purpose is to discover an area. People can't get familiar with their surroundings without getting out of the classroom (Pérez-Sanagustín et al. 2012).

Android-based smartphones have an Android operating system that is free and open source. Of course, this can be used as a means of learning media besides being cheap, it also has many interesting features. One of the considerations in developing smartphones into mobile learning media is the base system used. Data reported from gs.statcounter.com said that from January to December 2015, Android was the operating system that dominated smartphone circulation in Indonesia with a market share of 68.75%, followed by Blackberry OS with a market share of 8.73%. (Statcounter, 2015). The use of smartphones as a learning media for covid 19 is expected to be able to provide valid information related to covid 19 so that they can ward off hoaxes. In addition to the public will have easy access to it, they will also more easily understand about Covid-19. During this COVID-19 pandemic, there are still many young children who do not know what the Covid-19 virus is and what to do to avoid or prevent the spread of the Covid-19 virus. Si Covid is a learning media created to help disseminate information on health messages as an effort to prevent the development and spread of COVID-19 and to minimize HOAKS (fake news) information related to COVID-19 designed for early childhood. This Android-based application for early childhood is supported by facilities that can learn anytime and anywhere without being limited by distance, space, and time so that it can be more efficient and effective. It is hoped that it will be able to distribute correct information about Covid-19 so that it can suppress its spread.

2. Method

This study uses a qualitative method, namely research that tells data about the phenomena/symptoms studied in the field. Sugiono (2005:1) descriptive qualitative research is

Eur. Chem. Bull. 2023, 12 (6), 819 – 825

820

essentially about people in their environment, interacting with them, and trying to understand and interpret the world around them. Purposing the data can only be done if the depth obtained on facts obtained (Kusumandari & Istyarini, 2015:26). Analysis of qualitative description, is used to analyze the data and information obtained from a preliminary study with a survey method, the process of design development models and modeling work of experts (Kusumandari & Sukirman, 2017:3). The reason for the use of qualitative methods because the researcher's knowledge, no results of the assessment and empirical research that specifically addresses the development of the Covid-19 prevention media based Android for children. The researcher uses a phenomenological approach, where this study examines the effect of the Android-based Si Covid application as a learning medium for covid 19 in early childhood. The phenomenological approach

views human behavior, what they say and what they do, as a product of how people interpret their world (Bogdan, Robert, and Taylor, 1993). This research was conducted at the Pembina State Kindergarten of Semarang City in June-October 2020 with the test subjects in this study being class B students. There are 2 kinds of data in qualitative research, namely primary data and secondary data. This study uses data collection techniques: Interviews conducted with students, teachers, and parents, observation, and documentation. observations made by researchers, as well as online data searches. To test the validity of the data that has been collected, the researcher uses a source triangulation technique, which is studied and studied in depth to then carry out data reduction, coding, and concluding. For data analysis using the Miles and Huberman Model.
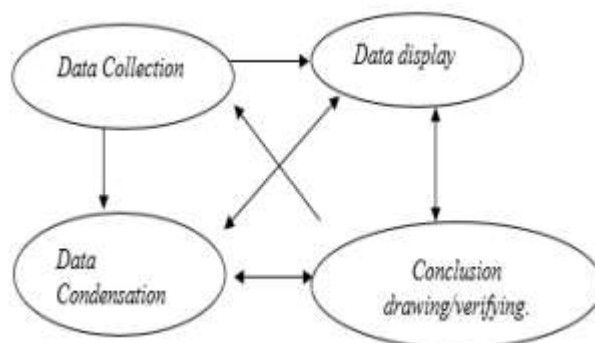

Figure1. Components in data analysis (interactive model) (Miles., 1984)

The object of this research is an android-based learning application on exposition and review text material as well as student assessments of the android-based learning application. This research data will explain how the android-based learning application products are used in the covid 19 material and also the reviews and assessments of students on android-based learning applications (reviews) so that the results of the research can be considered for the use of android-based learning applications for early childhood learning.

3. Result and Discussion

According to the results of observations and interviews, the results of in-depth research can be described as follows:
The Covid-19 pandemic has had a tremendous impact on human life globally. Normal activities almost certainly do not occur in many sectors of life. This happens in many places; not only in big

cities, but also in remote villages. Not only workers, even students and including students must stay at home. This also has an impact on the teaching and learning process of students. The outbreak of the Covid-19 pandemic that has hit Indonesia has disrupted all aspects of life, including the education sector. Anticipating all possible risks posed by Covid-19 to the health of education unit residents, the closure of education units cannot be avoided. The online learning process is expected to remain a solution during this pandemic. The government issued a policy to carry out face-to-face meetings after the positive cases of COVID-19 began to decline, where this period is called the new normal era. In early childhood learning, AUD teachers are required to be able to convey correct information about covid 19. Si Covid is an android-based application designed as a learning media for covid 19 in early childhood. Here's what Covid looks like:

Eur. Chem. Bull. 2023, 12 (6), 819 – 825

821

Figure 2. Display of the Covid

From the results of the interview with the AP teacher (interview 25 September 2020), the use of the Si Covid application as a learning medium used in the covid 19 material is easy to operate, interesting, and fun. In addition, it does not require internet access to play it. Internet access is only needed at the beginning when installing the application. The same thing was expressed by student B (interview 25 September 2020), who stated that he likes to play applications because at the beginning of using the application, it is easy to open the application, he also understands material about covid 19.

Figure 3. The child is playing an application.

In addition, the various games in the Si Covid application are very popular with children. To understand the material about covid 19, the child clicks on the picture and a voice will be heard conveying the material about covid 19. Course, this is very suitable for kindergarten students who cannot read and write. As stated by AP (interview 25 September 2020), mastery of reading, writing, and arithmetic is not a mandatory ability that must be possessed by Early Childhood Education (ECD) students because it emphasizes character education. This is followed by Jean Piaget, an educational psychologist from Switzerland, the stages of the cognitive or intellectual development of children are divided into four periods. The first period is the sensorimotor stage (0-2 years), in which infants use sensory and motor activities to recognize their environment. The second period is the pre-operational stage (2-7 years). In this phase, the child's language skills are good but still egocentric. Children still find it difficult to see things from a different perspective. Giving read-write-count lessons in a hurry will turn children into rebels, feeling bored and bored. These conditions can

Eur. Chem. Bull. 2023, 12 (6), 819 – 825

822

cause communication disorders, emotional control disorders, stress, depression, and other behavioral disorders during the golden age of children.

The covid application, which has an attractive and attractive appearance, makes children like to learn about covid 19. This is followed by Mrs. H's statement (interview 27 September 2020), Children like the covid application because it looks attractive and attractive so that children - the child feels he is playing not learning. Of course, this is followed by Ms. AP's statement that PAUD has a philosophy of being a place to play, a playground (interview 27 September 2020). However, not all children have their cell phones, the cellphones owned are owned by their parents so the implementation of the research adjusts the free time of parents (who work in the fields and those who work in an office).

Figure 4. The child is playing an application.

The Android-based educational application "Si Covid" has advantages and disadvantages as a learning medium. The advantages of this medium include: (1) The "Si Covid" application is a learning media that is not only presented on smartphones, but can also be used on desktops (PCs or Laptops) if the school does not allow students to bring or use smartphones at school; (2) The android and desktop-based educational application "Si Covid" is easy to carry anywhere and can be used anytime, so teachers can still take student grades or provide material to students even though they are not face to face; (3) The android and desktop-based educational application "Si Covid" not only presents material and questions but also has features as social media so that students don't get bored when using the application; (4) The android and desktop-based educational application "Si Covid" is a new innovation of Accounting learning media that can connect teachers and students so that they can interact actively both during KBM and outside KBM.; (5) Android and desktop-based educational application "Si Covid" can send messages by attaching files in the form of images, sounds, or documents; and (6) The android and desktop-based educational application "Si Covid" has a simple design so it doesn't look complicated when used. The disadvantages of this medium include: (1) the Android and desktop-based educational application "Si Covid" must use an internet connection to be used, if the network is not stable then the application may error although this is not always the case; (2) there is no feature to separate materials from various schools, so that if used in many schools and different materials still have the potential to confuse for students to find those from their schools; and (3) it can't be downloaded on the play store yet, so if there is a feature update it must be downloaded manually..

4. Discussion

Currently, the education sector has transformed, which was originally carried out in person or face to face in a room, but must be carried out online due to one of the epidemics that is currently hitting the country of Indonesia, namely the coronavirus. Thus, due to "Covid-19", the government's decision to limit all activities outside the home and invites the entire community to always stay indoors until the virus passes. Not only that, but the government has also made a new policy regarding the "adaptation of new habits during the pandemic". For example, in terms of maintaining health, before the pandemic and during the pandemic it is mandatory to maintain health. This is done to prevent the spread of the coronavirus. The world is required to adapt to the current conditions required by the "Covid-19 pandemic". Various elements have adopted online activities to break the Covid-19 chain, including the education component. Learning is done from home. Learning activities must continue to be carried out to order to create the nation's next golden generation. In this new normal era, the government issued a new policy related to education and gave permitted to conduct of face-to-face learning processes in the current new normal. The new normal itself is a new life for a community, where the whole community can carry out all activities as usual but must meet the health officers that have been regulated by the government to overcome the spread of covid-19.

Eur. Chem. Bull. 2023, 12 (6), 819 – 825

823

The government permits schools to hold face-to-face learning. The Android-based educational application "Si Covid" is a learning media that can be used as a means of educating early childhood about Covid 19. The use of this learning media aims to make it easier for students to understand the learning material being taught (Handayani & Dahlia, 2022). New variations of both methods, models, and learning media are very much needed in learning, especially in online learning during the COVID-19 pandemic because interesting and varied online learning can keep the quality of learning good so that students will be greatly helped in achieving online learning goals (Prawiyogi et al., 2020; Rajhans et al., 2020). The Android-based educational application "Si Covid" can be used by anyone using an Android smartphone. The Android-based educational application "Si Covid" is relatively easy to operate because it has been adapted to operational standards for Android applications in general.

5. Conclusion

The "Si Covid" application is a learning media that is not only presented on a smartphone but can also be used on desktops (PCs or Laptops) if schools do not allow students to bring or use smartphones at school which is effective for use as learning media for COVID-19.

6. References

Akker, J.J.H. Van Den, Branch, R., Gustafson, K., Nieveen, N.M. & Plomp, T. (Eds.) Design Approaches and Tools in Education and Training. Dordrecht: Kluwer Academic Publishers. 1999

Android Developers. 2012. "What is Android?". http://android.com

Bergvall-Kåreborn, B., & Howcroft, D. (2013). 'The future's bright, the future's mobile': a study of Apple and Google mobile application developers. Work, Employment and Society., 27(6), 964–981. https://doi.org/10.1177/0950017012474709.

Briggs, L. J. (1977). Instructional Design, Principle, and Application. New York: McGraw Hill Book Company

Clark, R. E. (1994). Media Will Never Influence Learning. Educational Technology Research and Development, 42(2), 21-29

Czeisler MÉ, Tynan MA, Howard ME, et al. Public Attitudes, Behaviors, and Beliefs Related to COVID-19, Stay-at-Home Orders, Nonessential Business Closures, and Public Health Guidance — United States, New York City, and Los Angeles, May 5–12, 2020. MMWR Morb Mortal Wkly Rep 2020;69:751–758. DOI: http://dx.doi.org/10.15585/mmwr.mm6924e1

Gitlin, Laura & Czaja, Sara. Behavioral Intervention Research: Designing, Evaluating and Implementing. New York: Springer. 2016

Gregory.2014.Public Relation Dalam Praktik.Jakarta.PT Gelora Aksara Pratama.hal 96-97

https://gs.statcounter.com/os-market-share/mobile/worldwide

Gustafson, Kent L. and Robert Maribe Branch. Survey of Instructional Development Models. Pittsford, USA: Eric Clearinghouse. 2002

Handayani, Sri & Dahlia, Island. 2022. ANIMA-LIE: Android-Based Learning Media on Animal Life Cycles Materials for Elementary School. Jurnal Ilmiah Sekolah Dasar. Volume 6, Number 2, 2022 pp. 287-294. P-ISSN: 2579-3276 E-ISSN : 2549-6174

Harold, K. Advanced Project Management: Best Practices on Implementation. USA: Willy & Sons. 2004

Hussein, Hassan Mohamed. Implementation Practices of Constituency Development Fund Projects in Kenya: A Case 2013. A Research Project Submitted to The School of Business in Partial Fulfillment of The Requirements for The Award of Master of Business Administration Degree (Strategic Management) of Kenyatta University 2018

Kusumandari, Rafika Bayu & Wibawa, Basuki. Learning Game-Based Android to Reduce Trauma Children in Disaster Areas. International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8, Issue- 1C2, May 2019

Kusumandari, Rafika Bayu & Sukirman. Organic Village as an Environmental Education Model based Community for Early Childhood in Semarang City, Central Java, Indonesia. Global Journal of HUMAN-SOCIAL SCIENCE: H Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc. (USA) Online ISSN: 2249-460x & Print ISSN: 0975-587X Interdisciplinary Volume 17 Issue 3 Version 1.0 Year 2017

Kusumandari, Rafika Bayu & Istyarini. Character Education Development Model-Based E-Learning and Multiple Intelegency In Childhood In Central Java. Global Journal of Computer Science and Technology: H

Eur. Chem. Bull. 2023, 12 (6), 819 – 825

824

Information & Technology Volume 15 Issue 3 Version 1.0 The Year 2015 Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc. (USA) Online ISSN: 0975-4172 & Print ISSN: 0975-4350

Lewis M, Sanchez R, Auerbach S, et al. COVID-19 Outbreak Among College Students After a Spring Break Trip to Mexico — Austin, Texas, March 26–April 5, 2020. MMWR Morb Mortal Wkly Rep 2020;69:830-835. DOI: http://dx.doi.org/10.15585/mmwr.mm6926e1

Miles, M. B. & Huberman, A. M. (1984). Qualitative Data Analysis: A Sourcebook of New Methods. California; SAGE Publications Inc

Murphy, Mark. Habermas and Social Research: Between Theory and Method, London: Routledge Advances in Sociology, 2017

Nielsen, Jacob and Tahir, Marie. Homepage Usability: 50 Websites Deconstructed. Munchen : Deutschland. 2002

Pérez-Sanagustín, M., Ramirez-Gonzalez, G., Hernández-Leo, D., Muñoz-Organero, M., Santos, P., Blat, J., & Kloos, C. D. (2012a). Discovering the campus together: A mobile and computer-based learning experience. Journal of Network and Computer Applications, 35(1), 176–188

Prawiyogi, A. G., Purwanugraha, A., Fakhry, G., & Firmansyah, M. (2020). Efektifitas Pembelajaran Jarak Jauh Terhadap Pembelajaran Siswa di SDIT Cendekia Purwakarta. Jurnal Pendidikan Dasar, 11(01), 94–101.
https://doi.org/10.21009/10.21009/JPD.081

Rajhans, V., Memon, U., Patil, V., & Goyal, A. (2020). Impact of COVID-19 on academic activities and a way forward in Indian Optometry. Journal of Optometry, 13(4), 216–226.
https://doi.org/10.1016/j.optom.2020.06.002

Richey, Rita C. Kleinn, James D. & Tacey, Monica W. The Instructional Design Knowledge Base Theory, Research, and Practice. New York: The McGraw-Hill Companies Inc. 2011

Sotiropoulos, D. N., Alepis, E., Kabassi, K., Virvou, M. K., Tsihrintzis, G. A., & Sakkopoulos, E. (2019). Artificial immune system-based learning style stereotypes. International Journal on Artificial Intelligence Tools, 28(04)

Sugiyono (2019). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung : Alphabeta

Whitman, C. Vince & Aldinger, C. E. Case Studies in Global School Health Promotion: From Research to Practice. New York: Springer. 2009

Wilcox,.2013.Public Relations Strategies and Tactics.Pearson Education.Inc.USA.hal 170

Young, T. L. Successful Project Management. London: Kogan Page. 2013

Eur. Chem. Bull. 2023, 12 (6), 819 – 825

825