

A Campaign Model for the Prevention of the Spread of Covid-19 Based on Android

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ABSTRACT

The aim of this research is to develop a campaign model for preventing the spread of covid-19 for children. Referring to the objectives to be achieved, this research program is designed with an "RnD" approach, meaning that a research program is followed up with a development program for improvement or refinement. The results of the study were: The results of the one-to-one trial and the results of small group trials, from media users. These results for each student's answer per item are added divided by 2. The total number of 50 points divided by 10 is 4.5. So that this application is in the good category. After the improvement of the one-to-one test results, a small group test was then carried out. These results for each student's answer per item are added divided by 4. The total amount of the total is 47 divided by 10 to obtain a value of 4.7. The results of the revised individual test and small group trial were then tested in large groups. The resulting final draft model is the result of a large group trial. Improvements from the draft II model are the results of individual trials and small group trials used for large group trials. The large group trial was carried out on Saturday, September 28, 2020 in the same place as respondents were 10 children aged 5 years, with heterogeneous abilities. From the overall results obtained, because it is above 4.5 (on a scale of 1-5), the application of the Android-based campaign model for preventing the spread of Covid-19 for children can be categorized as very good.

Keywords : Campaign Model, Based on android, Covid-19

Introduction

The World Health Organization (WHO) declared the Coronavirus outbreak a global pandemic, Wednesday (11/3/2020). Coronavirus or corona virus is a large family of viruses that cause mild to moderate upper respiratory tract infections, such as flu. The corona virus has spread to more than 141 countries around the world. The number of corona virus cases to this day, Thursday (12/9/2020), is still increasing. Worldometers data shows, there are 52,389,469 cases of the corona virus in the world. From that number, 1,288,480 people died, 36,648,618 people recovered. The proliferation of information circulating about Covid-19 has often caused unrest among the public. Apart from the fact that most of the information circulating is hoax, so the public's understanding of Covid-19 is not quite right. For this reason, there

needs to be a Covid-19 prevention campaign model for the community starting from children so that a healthy lifestyle will be easily implemented. This is to make it easier to reduce the high number of Covid-19 cases. Technological progress is now very fast and increasingly sophisticated. Many sophisticated technologies that have been created have made enormous changes in human life in various fields. One of the most popular communication technologies today is a smartphone or smartphone. Of course this can be used as a model for the Covid-19 prevention campaign. In addition to the community having easy access to it, they will also find it easier to understand about Covid-19. The use of gadgets is one of the media for the prevention of Covid-19 for children. This campaign aims to help accelerate the dissemination of information on health

messages as an effort to prevent the development and spread of COVID-19, minimize HOAKS (fake news) information related to COVID-19 circulating through social media, and increase community participation and empowerment.

Literature Review

Campaign Model Concept

A campaign is a method and technique of political communication in order to convey the vision and mission of gaining support in a choice. The aim is to influence the political attitude of the public in order to make political choices on those concerned rationally and objectively. In an election, of course, a campaign is a need for a pair of candidates to socialize their political programs in order to influence the public in determining their political choices. A successful campaign will succeed in attracting votes from voters, whereas a failed campaign will clearly not be able to achieve the goal, namely to produce maximum votes in an election.

Rogers and Storey (1987) cited by Antara Venus (2007: 7) defines a campaign as "a series of threatened communication actions with the aim of creating a certain effect on a large number of audiences which is carried out continuously over a certain period of time". Referring to this definition, every communication campaign activity must contain at least four things, namely (1) campaign action that is shown to create a certain effect or impact (2) a large number of target audiences (3) usually concentrated in a certain period of time and (4) through a series of organized communication breaks. Besides the four main characteristics above, the campaign also has other characteristics, namely a clear source, who is the initiator, designer, delivery and person in charge of a campaign product (campaign makers), so that each individual who receives a campaign message can identify and even evaluate the credibility of the source of the message. any time.

Charles U. Larson (In Ruslan, 2008: 25-26), divides the types of campaigns into three categories, namely: product-oriented campaigns, candidate-oriented campaigns, and ideological or cause campaigns.

Covid-19

Coronavirus or corona virus is a large family of viruses that cause mild to moderate upper respiratory tract infections, such as flu. Many people are infected with this virus, at least once in their life. However, several types of corona viruses can also cause more serious diseases, such as: Middle East Respiratory Syndrome (MERS-CoV), Severe Acute Respiratory Syndrome (SARS-CoV), and Pneumonia.

Anyone can be infected with the corona virus. However, infants and young children, as well as people with weakened immunity, are more susceptible to attack by this virus. Apart from that, seasonal conditions may also have an effect. For example, in the United States, coronavirus infection is more common in autumn and winter. In addition, someone who lives or visits an area or country that is prone to the corona virus, is also at risk of contracting this disease. For example, visiting China, especially the city of Wuhan, which was once the COVID-19 outbreak which began in December 2019.

Coronavirus infection is caused by the corona virus itself. Most corona viruses spread like other viruses in general, such as: Splashing of someone with the saliva (coughing and sneezing), Touching the hands or face of an infected person, Touching the eyes, nose, or mouth after handling items that have been splashed with the saliva of a person with the corona virus, and Stool or stool (rare). The corona virus can cause various symptoms in people with it. The symptoms that appear depend on the type of corona virus that attacks, and how serious the infection is. Here are some symptoms of the corona virus that are relatively mild: Runny nose, Headache, Cough, Sore throat, Fever, and Feeling unwell.

Smartphone Android

A smartphone is a smartphone that has computer-like capabilities. Smartphones are classified as high end mobile phones equipped with mobile computing capabilities. With these mobile computing capabilities, smartphones have capabilities that cannot be compared to ordinary cellphones.

Android is software for mobile devices that includes an operating system, middleware and core applications. Android is equipped

with the Android SDK (Software Development Kit) which provides tools and supports the API (Application Programming Interface) required to develop applications on the Android platform using the Java programming language. (Android developer, 2012) Android applications are written in the Java programming language, which is Java code compiled together with the data and resource files required by the application which are combined by aapt tools into an Android package, a file marked with the suffix .apk. This file is distributed as an application and installed on mobile devices (Mulyadi, 2010).

The features found on Android are: Application Framework, Dalvik Virtual Machine, Integrated Browser, Optimized graphics, SQLite, Support media for audio, video and image formats (MPEG4, H.264, MP3, AAC, AMR, JPG, PNG, GIF), GSM Telephony (depending on mobile device), Bluetooth, EDGE, 3G, and WiFi (depending on mobile device), camera, GPS, compass, and accelerometer (depending on mobile device), and Rich Development Environment. (Android developer, 2012).

RESEARCH METHOD

Referring to the objectives to be achieved, this research program is designed with an "RnD". Developmental research seeks to create knowledge grounded in data systematically derived from practice (Richey & Klein, 2005: 24). Furthermore, Richey et al (2004: 1100) argue that development, in its most generic sense, implies gradual growth, evolution, and change. This concept has been applied to diverse areas of study and practice. Akker, et al (1999: 7) says that development research is often initiated for complex, innovative tasks for which only very few validated principles are available to structure and support the design and development activities. In this research, Research and Development is used to produce a prototype campaign model for the prevention of the spread of Covid-19 based on Android for children, systematic steps were taken in the form of a process of action, reflection, evaluation and innovation by applying qualitative research methods, descriptive, development, experiment, and evaluation. Smartphone application

development does not have a structured standard and methodology. Approaches that are generally used are implementation, test, and release. The results of the programs developed are often low in terms of reusability and are very difficult to maintain (Nielsen & Tahir, 2002: 76).

This research is expected to be able to build a theory inductively from data abstractions collected about the Covid-19 prevention campaign model based Android for children. based on the findings of meaning in the experienced setting. Children who became the object of the study were children aged 6-7 years in Central Java with samples in areas with red zones and green zones using random sampling. Data were collected from experienced background (natural setting) as the data source directly. 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 the use of qualitative methods because the researcher's knowledge, no results of the assessment and empirical research that specifically address the development the Covid-19 prevention campaign model based Android for children (Sugiharto & Kusumandari, 2016: 565).

RESEARCH RESULT AND DISCUSSION

RESEARCH RESULT

This study developed an android-based campaign model for preventing the spread of Covid-19 for children. The initial product of the Covid-19 spread prevention campaign model was created using Adobe Flash Professional CS6 and was assisted by a programmer to help compile the necessary Action Script. The type of writing used in this media is Arial, adjusted to the screen size and the amount of text displayed on the screen. While the type of writing used on the main menu display and title use different fonts and sizes and are made to make it look attractive. Adjustment of voice / narrative with existing writing, displaying writing that

is clearly visible with the color and size of the font, and presenting a different evaluation question each time the student tries it, the researcher conducts the draft I development

model. The storyboard design was then developed into a draft I model of the Integral material campaign model application



Figure 1. Front page view of the campaign model to prevent the spread of Covid 19

The following is a display of the icon for the campaign to prevent the spread of Covid-19 on Smartphones.



Figure 2. The icon for the campaign to prevent the spread of Covid-19 on Smartphones.

To determine the effectiveness of the product of the Covid-19 spread prevention campaign model, trial activities were carried out in 3 stages, namely one to one trials, small group trials and small group trials. For this research activity, a trial will be carried out. Results from one-to-one trials and small group trial results from media users. The one-to-one (individual) trial was held on Thursday, September 24, 2020 at TK Negeri Pembina Kota Semarang with two respondents aged 6 years. Meanwhile, the small group trial was

held on Monday, September 26, 2020 in the same place as the one to one test with 4 students as respondents with heterogeneous abilities. Respondents were asked to look at and study the content of the campaign application with the direction of the researcher. Then students were interviewed using interview guidelines regarding their suggestions and impressions of the campaign application that was made. From one-to-one trials and small group trials, it was found that the campaign application made was interesting and fun to play.



Figure 3. Documentation of One to One Test Activities

To find out how effective the application has been, 10 points of observation were made and 5 questions. The narrative of the one-to-one test results from 2 students can be written as follows.

- At the beginning of using the application, a child opens the application upside down.
- Children have little difficulty closing.
- Children enjoy operating a campaign model application.
- Children love the Android-based Covid-19 prevention campaign model.
- Children easily understand the material and children are able to campaign for health protocols..

Table1. Feasibility of One to one Test Results

No.	Statement	Result
1.	Children can operate an Android Smartphone-based Covid-19 prevention campaign model application	4
2.	Children can easily operate an Android Smartphone-based Covid-19 prevention campaign model application	5
3.	Children are happy to operate an Android Smartphone-based Covid-19 campaign model application	4
4.	Children love the Android Smartphone-based Covid-19 prevention campaign model	4
5.	Children easily understand the material given	4
6.	Children can easily use an Android Smartphone-based Covid-19 prevention campaign model application	4
7.	Children understand the material in the Android Smartphone-based Covid-19 prevention campaign model application	5
8.	Children can answer information about covid-19	5
9.	Children can play games in the Android Smartphone-based Covid-19 prevention campaign model application	5
10.	Children can campaign for the prevention of covid-19	5
Total		45

These results for each student's answer per item are added divided by 2. The total number of 50 points divided by 10 is 4.5. So that this application is in the good category. After the improvement of the one-to-one test

results, a small group test was then carried out. The results of small group trials can be seen in the following table and figure.

Tabel 2. Feasibility of Small Group Test Results

No.	Statement	Result
1.	Children can operate an Android Smartphone-based Covid-19 prevention campaign model application	4
2.	Children can easily operate an Android Smartphone-based Covid-19 prevention campaign model application	4.5
3.	Children are happy to operate an Android Smartphone-based Covid-19 campaign model application	5
4.	Children love the Android Smartphone-based Covid-19 prevention campaign model	5
5.	Children easily understand the material given	4
6.	Children can easily use an Android Smartphone-based Covid-19 prevention campaign model application	4.5
7.	Children understand the material in the Android Smartphone-based Covid-19 prevention campaign model application	5
8.	Children can answer information about covid-19	5
9.	Children can play games in the Android Smartphone-based Covid-19 prevention campaign model application	5
10.	Children can campaign for the prevention of covid-19	5
Total		47

These results for each student's answer per item are added divided by 4. The total amount of the total is 47 divided by 10 to obtain a value of 4.7. The narrative of the results of the small group test of 4 students can be written as follows.

- At the beginning of using the application, children can easily open the application.
- Children enjoy operating a campaign model application.
- Children love the Android-based Covid-19 prevention campaign model.
- Children easily understand the material.
- Children are able to campaign for health protocols

**Figure4.Small Group Test Activity Documentation**

Final Model

The results of the revised individual test and small group trial were then tested in large groups. The resulting final draft model is the result of a large group trial. Improvements from the draft III model are the results of individual trials and small group trials used for large group trials. The large group trial

was carried out on Saturday, September 28, 2020 in the same place as respondents were 10 children aged 5 years, with heterogeneous abilities. The children were asked to look at and study the contents of the application with the direction of the researcher. Then they were asked for their opinion regarding the use of a campaign application to prevent the

spread of Covid-19 for children. At the large group test stage there was no change in the draft II model. The results of large group

trials can be seen in the following table and figure.

Table 3. Feasibility of Large Group Test Results

No.	Statement	Result
1.	Children can operate an Android Smartphone-based Covid-19 prevention campaign model application	5
2.	Children can easily operate an Android Smartphone-based Covid-19 prevention campaign model application	4.5
3.	Children are happy to operate an Android Smartphone-based Covid-19 campaign model application	5
4.	Children love the Android Smartphone-based Covid-19 prevention campaign model	5
5.	Children easily understand the material given	4
6.	Children can easily use an Android Smartphone-based Covid-19 prevention campaign model application	4.5
7.	Children understand the material in the Android Smartphone-based Covid-19 prevention campaign model application	5
8.	Children can answer information about covid-19	5
9.	Children can play games in the Android Smartphone-based Covid-19 prevention campaign model application	5
10.	Children can campaign for the prevention of covid-19	5
Total		47.5

The narrative of the results of the large group test of 10 students can be written as follows.

- At the beginning of using the application, children can easily open the application.
- Children enjoy operating a campaign model application.
- Children love the Android-based Covid-19 prevention campaign model.
- Children easily understand the material.
- Children are able to campaign for health protocols.

From the overall results obtained, because it is above 4.5 (on a scale of 1-5), the application of the Android-based campaign model for preventing the spread of Covid-19 for children can be categorized as very good..

Product Eligibility

The results of product development are subject to theoretical and empirical feasibility tests. The process of feasibility testing is carried out in several stages, namely the expert test, the one to one test, the small group test and the large group test. After going through a series of feasibility tests, it was determined that the results of this development product were in the form of

"Development of an Android-Based Covid-19 Prevention Campaign Model for Childrens".

In the development process using a qualitative descriptive method. The qualitative method is looking for a deep understanding of all symptoms, facts or reality (Raco, 2017: 1-2). Facts, reality, problems, symptoms and events can only be understood if the researcher investigates them in depth, not limited to visible phenomena. This method is most suitable to be used to find out how effective an Android-based campaign product is for preventing the spread of Covid-19 for children. Researchers in qualitative research try to understand the meaning of an event or event by trying to interact with people in that situation / phenomenon (Yusuf, 2014: 328). Murphy (2017: 49) says that: As a qualitative researcher, it is vital for the interviewees to trust you. Overcoming the lack of trust with many of the interviewees took time and effort, including providing my resume, my detailed background information, IRB paperwork, overview of the study, and rescheduling the interviews.

As a qualitative researcher, it is very important for the interviewee to trust you. Overcoming a lack of trust with many interviewees takes time and effort, including providing my resume, my detailed background information, IRB documents, research summaries, and rescheduling of the interview.

To overcome this tension the phenomenographic research method is used in an unusual way in several ways. The main feature is that the qualitative phenomenographic process is combined with the quantitative frequency analysis before and after the number of student responses that fall into each description category, which is part of the results of the phenomenographic study. Thus, this qualitative method can be used to describe the results of research on the development of a campaign model for the prevention of the spread of covid-19 based on android to optimize the campaign to prevent the spread of Covid-19.

Field Test

Research activities at this stage were carried out to determine to what extent the campaign model for the prevention of the spread of Covid-19 based on android for children was effective. Research permits were arranged in 5 districts / cities, namely Semarang City, Kudus Regency, Kendal Regency, Wonosobo Regency and Cilacap Regency. The location selection for this study was based on the Covid-19 spread zone, where the red zone in Semarang and Wonosobo City, the yellow zone in Kendal and Cilacap Regencies and the green zone in Kudus Regency. Even though during the research implementation, the zone of each district / city had changed its distribution zone status. From each research location 2 schools were taken from different sub-districts so that 1 sub-district had only 1 school. This is due to

government regulations regarding the implementation of teaching and learning activities that use online.

For Semarang City, the research locations were TK Negeri Pembina (Gajamungkur District) and TK Hidayatulloh (Banyumanik District). Kudus Regency in TK PertiwiRejosari, and RA RibatutTolibinRejosari, Dawe District. Kendal Regency in SDN Tamarejo 1, Limbangan District and MI NU Bojo, Boja District. Wonosobo Regency in SDN Rojoimo 1, Wonosobo District and TK AisyiyahSudagaran, Kretek District. Cilacap Regency in MI Ma'arif 04 Gentasari, Kroya District and TK Al Kautsar, Sampang District.

This field test was conducted to determine the effectiveness of the Android-based Covid-19 prevention campaign model for children before this application was disseminated. The implementation of this activity is carried out from September - October 2020 by paying attention to health protocols and adjusting the teaching and learning activities of each Regency / City. Teaching and learning activities during the pandemic were carried out by SFH, so that the research sample was only taken 5 children for each school.

The field test was carried out on Saturday, October 1 - 30, 2020 with 10 respondents aged 5-7 years, with heterogeneous abilities. This activity is carried out according to the regulations of the Regency / City Education Office regarding the implementation of learning. The children were asked to look at and study the contents of the application with the direction of the researcher. Then they were asked for their opinion regarding the use of a campaign application to prevent the spread of Covid-19 for children. Field test results can be seen in the following table and figure.

Table 4. Field Test Results

No.	Statement	Result
1.	Children can operate an Android Smartphone-based Covid-19 prevention campaign model application	4
2.	Children can easily operate an Android Smartphone-based Covid-19 prevention campaign model application	5
3.	Children are happy to operate an Android Smartphone-based Covid-19 campaign	5

No.	Statement	Result
	model application	
4.	Children love the Android Smartphone-based Covid-19 prevention campaign model	5
5.	Children easily understand the material given	4
6.	Children can easily use an Android Smartphone-based Covid-19 prevention campaign model application	4.5
7.	Children understand the material in the Android Smartphone-based Covid-19 prevention campaign model application	5
8.	Children can answer information about covid-19	5
9.	Children can play games in the Android Smartphone-based Covid-19 prevention campaign model application	5
10.	Children can campaign for the prevention of covid-19	5
Total		47.5

The narrative of the field test results can be written as follows.

- At the beginning of using the application, children can easily open the application.
- Children enjoy operating a campaign model application.
- Children love the Android-based Covid-19 prevention campaign model.
- Children easily understand the material.
- Children are able to campaign for health protocols.

From the overall results obtained, because it is above 4.5 (on a scale of 1-5), the application of the Android-based campaign model for preventing the spread of Covid-19 for children can be categorized as very good. Apart from that from the field test, there is some information obtained, namely:

- Not all children have their own cellphones, the cellphones owned are those of the parents so that the research was carried out according to the spare time of the parents (those who work in the fields / fields and those who work in offices).
- This condition is beneficial for the effectiveness of the campaign to prevent the spread of Covid-19 because children will continue to remind parents to be disciplined in implementing health protocols.

Discussion

The model is essentially a visualization or conceptual framework that is used as a guide in carrying out activities. Gustafon and Branch (2002: 1) define the model as "a model is a simple representation of more complex forms, processes and functions of physical phenomena or ideas". The model can be

developed according to the needs, so it must be developed by paying attention to the suitability of the users' needs in order to achieve effective, efficient and attractive learning objectives. Some of the supporting factors of the model development are:

- a. Support from various parties in designing the program.
- b. The need for a solution for the campaign to prevent the spread of Covid-19.

While some of the obstacles in model development are:

- a. A pandemic situation that makes it difficult for researchers to get input from stakeholders regarding the content of the campaign model for preventing the spread of Covid-19.
- b. The limited research time makes researchers have to be able to design a model application to prevent the spread of Covid-19 in a short time.

The model developed in this study is an Android-based covid-19 prevention campaign application for children. The Android operating system was chosen because Android is an open operating system that allows users to add their own desired applications freely in addition to the basic application of the default mobile phone (Kusumandari & Wibawa, 2019: 795). A campaign is a method and technique of political communication in order to convey the vision and mission of gaining support in a choice. The aim is to influence the political attitude of the public in order to make political choices on those concerned rationally and objectively. Rogers and Storey (1987) cited by Antara Venus (2007: 7) defines a campaign as "a series of threatened

communication actions with the aim of creating a certain effect on a large number of audiences which is carried out continuously over a certain period of time". The campaign model for preventing the spread of Covid-19 was made based on android because of the availability of facilities and infrastructure that support the optimal use of the application.

The term android refers to an operating system for linux-based mobile devices which includes the operating system, middleware, and applications. Android provides an open platform for developers to create their applications. Android is the operating system that powers more than a billion smartphones and tablets. Android is a platform for the operating system on mobile devices that is open source, based on the Linux kernel. This platform allows developers to create programs in the Java programming language. The Android operating system was chosen because Android is an open operating system that allows users to freely add their own desired applications in addition to the basic default mobile phone applications.

The campaign model for the prevention of the spread of Covid-19 is made based on android fit to be applied because the teaching and learning process is carried out in SFH where students learn by using cellphones. A campaign is a method and technique of political communication in order to convey the vision and mission of gaining support in a choice. The aim is to influence the political attitude of the public in order to make political choices on those concerned rationally and objectively. In an election, of course, a campaign is a need for a pair of candidates to socialize their political programs in order to influence the public in determining their political choices. A successful campaign will succeed in attracting votes from voters, whereas a failed campaign will clearly not be able to achieve the goal, namely to produce maximum votes in an election..

Whitman & Aldinger (2009: 19, Gitlin&Czaja, 2016:366; Husein, 2013: 1), implementation is defined as a specified set of activities designed to put into practice an activity or program of known dimensions, a constellation of processes that are meant to get interventions used in an organization. As

such, implementation is the action that must follow any preliminary thinking in order for something to actually happen and as a specified set of activities designed to put into practice an activity or program of known dimensions.

The activity or program being implemented is described in sufficient detail so that independent observers can detect its presence and strength (Harold, 2004). In other words implementation simply means carrying out the activities described in a work plan, therefore making Project implementation or project execution the phase where visions and plans become reality (Young, 2013).

As described above, after the model is developed, model trials are carried out starting from one to one test, small group test, large group test and field test. In developing the model, expert validation tests were also carried out which included material experts, media experts and linguists. Several factors supporting the implementation of the model include:

- The application program for the campaign model for the prevention of the spread of Covid-19 made on Android can be installed on children's cellphones because almost 100% of children have the latest series android phones with large capacities.
 - Operation of the program only requires the internet at the beginning of program installation and all children who have.
 - Children are used to playing android games so it is easy for them to play the games that are made.
- Then for the inhibiting factor are.
- The capacity of the program is large, so not all laptops can be used to open programs, especially laptops with Windows 10, must be upgraded to Core i V, of course it makes program operations often "hang" making it difficult to open programs.
 - For laptops that still use Windows 10, they cannot directly open the program, they must be supported by supporting applications so that the Android program can be opened. The existence of this application makes laptop operations even more difficult because the laptop's RAM capacity is not compatible.
 - To play this game, it can only be done on an Android phone.

CONCLUSION

Based on the formulation of the problems raised in this study, the following conclusions were obtained:

- The resulting model is an android-based application for the prevention of the spread of Covid 19 for children.
- The results of product development are subject to theoretical and empirical feasibility tests. The process of feasibility testing is carried out in several stages, namely expert testing, one to one test, small group test, large group test and field test. After going through a series of feasibility tests, the results of this development product were determined to be in the form of "Application of an android-based campaign model for preventing the spread of Covid 19 for children.
- This application can be easily installed on all brands and types of Android cellphones, can be played without using the internet, is attractive to children to adults, and this application is effective for campaigns to prevent the spread of Covid-19.

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