

Self Concept in Social Behavior Based Android to Boost Family's Immunity in Preventing Covid-19 Spread

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ABSTRACT

The purpose of this study is to develop self concept in social behavior based Android to boost the immunity of family members as the prevention of Covid-19 spread. The developments are (a) self-concept in physical terms including family, school, and children's play environment, (b) self-concept in social terms in the family environment, which describes social relations in the family and the community environment, (c) self-concept in intellectual terms, which describes self ability, self confidence, and self responsibility. Therefore, by using questionnaire as an instrument, the result of the research showed that; (a) the development product of self concept in social behavior is feasible to used, (b) the result of extensive trials stated that, the product is effective to boost the immunity of family members in the form of feeling relaxed, calm, and happy because of their understanding of Covid-19 spreads concept.

Keywords: *Self Concept, Family Immunity, Android-Based Apps*

1. INTRODUCTION

The Covid-19 has stated as a worldwide epidemic. The latest news confirmed that 200 countries have affected by this virus. The Covid-19, originating from Wuhan China, entered Indonesia in early March 2020 [1] marked by 2 residents in Jakarta was tested positive. Kompas.com [2] indicated the movement of Covid-19 cases was very rapid.

This data shows that the spread was extremely fast in one month. It showed that two cases became 4,839 cases, with 459 dying and 426 recovering. The rapid spread shows that the behavior of the peoples are still ignorant to the government's protocols on maintaining distance, avoiding physical contact, staying at home and working from home. Apart from economic issues, political issues and others, the researchers try to highlight the social aspects related to the social behavior. The prescription from the medical side is clear that the spread of this virus can be prevented by minimizing physical contact, because there are no tools that can detect clearly who is a carrier of the virus and who is infected.

The information about the way to prevent the spread of COVID-19 presented almost every time in electronic news or social media. The protocol to stay at home is one of the efforts to break the chain of the spread of

coronavirus. Unfortunately, people out there are still ignoring the government's protocols for various reasons. The big problem is the level of individual's awareness to obey the rules. It cannot be blame on any pretext because until the COVID-19 reached nearly 5,000 cases, the government had not guaranteed the survival of the peoples. However, to reduce the burden on the government related to preventing the spread of COVID-19, it is necessary to remind each other to always aware of the government's protocols.

Liputan6.com [3] has given a concrete message to avoid the spread of the coronavirus. The way to break the chain of spreading the coronavirus is by maintaining physical distancing, working from home, studying at home, and praying at home. All of these rules will certainly implemented when the individual's awareness grows by itself. It is said by psychologist Jean Piaget[4] that awareness must go beyond a long process through (a) *self-reflective*, (b) *social self*, and (c) *self-manifestation*. This self-manifestation process will establish a self-concept. Because of a low individual awareness, it is necessary to examine self-concept in social behavior through the development of android apps in order to increase knowledge and boost the immunity of family members. There are at least two aiming points in this study, the first is the embedding self-concept in the family environment which will build awareness from an early age so they can be community members who obey the rules, and the second is to provide knowledge about self-

concept in the family environment to reduce boredom during staying at home. The urgency of this research is to increase people's insight about self-concept in social behavior to build self-awareness and be able to implement all the rules and get benefits for the people around, including family members.

The research problems can be formulated as follows; (1) how the product boosts the immunity of family members in preventing the spread of Covid-19, (2) how is the feasibility of the product, (3) how effective the product to boost the immunity of family members as a prevention of the spread of Covid-19. The objectives of this study are (1) describe the development product in boosting the immunity of family as prevention of the Covid-19 spread, (2) describe the feasibility of the product, (3) determine the effectiveness of the development product. The benefits of the research are (1) get a real picture of the self-concepts in social behavior based Android to boost the immunity of the family, (3) determine the effectiveness of the self-concepts in social behavior based Android to boost the immunity of family members as an effort to prevent the spread of Covid-19.

2. METHOD

This development research adopted 4D design from Thiagarajan, Semmel and Semmel [5]. The design includes *define-design-develop-disseminate*, with the following procedure (1) *define*, is carried out by analyzing the objectives of self-concept in social behavior materials which is embodied in android based animation, (2) *design*, the self-concept in social behavior will be designed by constructing narrative activities of family members that describe their perception in the term of self-health, social, and intellectual, (3) *develop*, produce prototype of Android-based animation that integrate with self concept narration. Then, it will conduct an expert validation process (materials and media experts), (4) *disseminate*, conducting large group trials given to the families who are affected by COVID-19 by sending the product and online questionnaire (*google form*) to at least ten families.

Data collection was conducted by (1) online observation with the family through *zoom meetings* and *hangout meetings* about the use of the product, (2) an online questionnaire by using *google form* for material experts and media experts to validate the product, the second contains questions about the conditions of family life when *staying at home* by comparing before and after using the app.

Data analysis was conducted by analyzing (1) the products narratively to describe the development process, (2) the feasibility test from material experts, and media expert by practitioners, (3) the results of distributing 15 questionnaires (*google form*) to families with school age children.

3. RESULT AND DISCUSSION

3.1 *The Development Products of Self Concept in Social Behavior Based Android*

The researchers' team does this product by compiling the materials in the form of narrative story. The contents are divided into 3 (three) concepts; (a) self-concept in physical terms, (b) self-concept in social terms, (c) self-concept in intellectual terms.

3.2 *Product Feasibility of Android-based Apps of Self Concept in Social Behavior*

The feasibility of the product conducted by material experts and media experts. The results of the validation showed that self-concept product is feasible to use based on its material and media.

3.3 *Effectiveness of Self Concept in Social Behavior Based Android*

- a. "Yes" answer is given a score of 2 and "no" answer is given a score of 1.
- b. The score results are multiplied by the number of family members who filled out the questionnaire.
- c. The lowest score is obtained from the calculation of the lowest pre/post score that multiplied by 5 (the number of main questions) then multiplied by the number of families that filled out the questionnaire (e.g. $1 \times 5 \times 3 = 15$).
- d. The highest score is obtained from the calculation of the highest pre/post score multiplied by 5 (the number of main questions) then multiplied by the number of families that filled out the questionnaire (e.g. $2 \times 5 \times 3 = 30$).
- e. The sign is a form of change. If the pre value is smaller than the post value, it means that it has a "+" change sign. While, the pre value is greater than the post value, the sign will be "-". If the value is the same, there will be no change so it will be marked as "=".
- f. Information intended to emphasize the position of the change mark of test result.
- g. Data processing table shown in Table 1.
- h. Data analysis using the sign test formula so that statistical decisions can be found.

Table 1. Data Processing of the Effectiveness of Self Concept Applications

No	Family Name	Members	Value		Change (+/-)	Information
			Pre	Post		
1	Putu K	3	24	26	+	
2	Siti K	3	26	30	+	
3	Yunita	3	24	28	+	
4	Farhan	3	28	28	-	Fixed
5	Dimas P	3	24	26	+	
6	Huda	3	25	26	+	
7	Santi	3	21	25	+	
8	Bima Eka	3	20	22	+	
9	M. Yani	3	22	26	+	
10	Ilham Zain	3	18	20	+	
11	Bayu S	3	26	27	+	
12	Feri	3	16	20	+	
13	Toni	3	20	20	-	Fixed
14	Afais K	3	26	27	+	
15	Yanti S	3	21	25	+	
Total Change					13	

Calculation of the formula for Sign Test = $\frac{X - np}{\sqrt{np(1-p)}}$ = $\frac{13 - 15(0,50)}{\sqrt{15(0,50)(0,50)}}$ = $\frac{13 - 7,5}{1,936}$

$z = 2.841$

The critical area is $z > 1.96$ and $z < -1.96$, because z count $2.841 >$ from the critical value 1.96 then it can be analyzed that the android-based app of self-concept in social behavior is effective to help boosting the immunity of family members as an effort to prevent the spread of COVID-19.

The results of this study indicate that; (1) the development product stated feasible to use based on design and material aspects, (2) the product is effective to boost the immunity of family members to prevent the

spread of COVID-19, (3) The final form of this research product is scientific articles that submitted to international seminars or Sinta Dikti journals.

The results of this study are in line with the study conducted by Muyaroah, et al. (2017) [6] which states that the development of Android-based learning media by using Adobe Flash CS 6 application in Biology subjects is significantly effective for learning. Meanwhile, Andriana Teodorescu (2015) [7] revealed that the use of the learning tools to understand the internet is intended to provide a balance between shorter time and pleasure in operation.

Meanwhile, Mostafa Al Emran, et al. [8] also explained in their work, *Investigating attitudes towards the use of mobile learning in higher education*, that M-learning can be used as a pedagogical technology medium that offers employment in higher education environments. Dan Gonzales (2015) [9] emphasizes that the use of M-learning can contribute positively to the learning process.

4. CONCLUSION AND SUGGESTION

The results of this study can be concluded as follows: (1) The product of this research is the development of self-concept in social behavior based android. It is a dialogical scene about self-concept, the spread of covid-19 and its prevention which is packaged in the mobile phone with Android system. The contents of the scene include, (a) self-perception in physical terms, introduces how to understand the importance of personal health at the family environment, school environment, and children’s play/community environment, so personal hygiene can be a good behavior in everyday life, (b) self-concept in social terms, provides an overview of how to interact with family members in a fun and happy way also respectful among each others, so it can reflect social behavior in a harmonious family life, (c) self-concept in intellectual terms, conditions that describe how to use their intellectuals in social interactions at the family environment, school environment, and children’s play/community environment, so since the early age, family members can understand scientific behavior, (2) The development of self-concept in social behavior based android have scientifically obtained expert validation, the result showed that this app is feasible to use and can be tested extensively in order to obtain more comprehensive benefit, (3) the results of the study claimed that it is effective to use the self-concept product because the value of sign test shown 2.841 .

Based on the results of the research, it can be suggested that (1) family's boredom during the Covid-19 pandemic can be minimized with a relaxed, joy, and happy family life. It happened if there is any fun entertainment, such as applications that are entertaining yet educating, (2) the development of self-concept product, can giving people's insight on social behavior. Therefore, it needed to embedded on family members as early as possible to not to neglect the others social behavior, (3) self-concept must be formed since beginning in the family environment. Every family member should be able to provide a correct understanding of self-concepts related to social behavior. If this can be embedded as early as possible, then kind of neglect behavior towards others will never occur.

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