Development of Go-Bung (Golek Tembung) Application as An Innovation of Android-Based Javanese Vocabulary for Children

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ABSTRACT
Children of elementary school-age are experiencing obstacles with Javanese vocabulary now. The priority of learning Javanese has declined among children and parents. This is because their attention has shifted to technological developments that have an impact on the high level of gadget usage. This study aimed to: (1) developing Go-Bung (Golek Tembung) as an Android-based application; (2) explain the urgency of Javanese language vocabulary introduction in children; and (3) identify the impact of using the Go-Bung application. The research method used was mixed method. The results obtained were: (1) there were four stages of application development including scenario design, modeling, production, and testing; (2) the importance of introducing Javanese vocabulary to children to revive a sense of cultural love and conserve their culture; and (3) the use of the Go-Bung application had a positive impact on children, parents, and Javanese language teachers. This application can support better quality human resources

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INTRODUCTION

The Javanese ethnic group are one of the big and advanced tribes in Indonesia (Sulaksono, 2016). The Javanese have inherited culture, one of which is Javanese language. Language is a reflection of the culture and identity of language speakers (Sukarno, 2010). In the process of its development, Javanese is one of the languages in the Indonesian archipelago that has developed and has a wide variety of accents/dialects. These languages are used for various purposes, such as respect and magnificence (Sulaksono, 2016). Meanwhile, Javanese language could become a mother tongue if Javanese is the first language that a person has mastered since born through interactions with fellow members of their language community, especially with their private family (Kridalaksana, 2008).

The empowerment of Javanese language learning needs to be optimized in an effort to preserve the country's priceless cultural wealth (Arafik and Rumidjan, 2016). Javanese...
language is a local subject held in all schools located in Central Java, East Java and Yogyakarta, both at the level of elementary schools, junior high schools, and senior high schools. Javanese is a language that contains noble character and reflects the manners of the users or speakers (Dewi and Apriliani, 2019). In addition, Javanese language vocabulary which is implemented in Javanese age-based communication also has important benefits because it teaches students to respect older people or how to speak well to others (Praheto, 2015). Based on this, the younger generation of Javanese must preserve their own language in order to survive its existence.

But in reality, elementary school-age children were experiencing obstacles with Javanese language vocabulary. This is because some parents were not habituating their children with the use of Javanese in their daily lives. Some parents tend to teach their children Indonesian and / or foreign languages (Dewi and Apriliani, 2019). Those phenomena also happened in several schools, children communicate using Javanese to others only in Javanese language class (Dewi, 2017). In addition, the Javanese-mode of Wikipedia is not utilized by teachers in the learning process of Javanese in elementary schools. These improper habits cause children to often mix between Javanese and Indonesian in a dialog/speech/paper-writing, so that the phenomenon of code mixing occurs, both in oral and written form. This is because children's slightly knowledge of Javanese vocabulary, so children were usually using Indonesian to mention something unknown in Javanese.

Meanwhile, based on a survey conducted by the author of 60 Javanese-tribe respondents related to the use of Javanese language by elementary school-age children, 70% of elementary school children felt that they experienced obstacles if there was a Javanese task because they did not know the meaning of some Javanese vocabularies. As many as 41.7% of elementary school children often complain if there are assignments or tests in Javanese. Of course, this can threaten the existence of Javanese in children. In fact, education about the correct use of Javanese language must start from early age by parents (Praptanti, 2010; Harwati, 2018). But now, the priority of learning Javanese has declined among children and parents. This is because the attention of children and parents has shifted to the development of existing technology over time.

The development of science and human knowledge requires the development of technology that is created. This can be proven by the many applications created and developed as a solution to human problems. Technological developments also affect the civilization of a nation in various fields. This is because technology has an important role and is able to dominate human life at a certain time (Saefudin, 2008). Changes in civilization can lead to negative and positive impacts depending on how technology is used. In addition, in the era of the industrial revolution 4.0, every individual cannot avoid the influence of technological advances that occur, including at the age of children (Ngafifi, 2014). Technological developments that have resulted in globalization also affect in the massive influence of foreign languages and cultures to enter Indonesia. This actually makes Javanese language more and more unfamiliar among children (Aji et al., 2018).

Based on a survey conducted by the author of 60 respondents from elementary school-age children, 60% of the children use gadgets every day. While 48.3% of children use gadgets to play games rather than for communication, learning, or watching educational
recreational videos. Of course the languages often used in the games were Indonesian and English. In addition, the existence of the Covid-19 pandemic also affects the increasing frequency of gadget using by children. One of the government’s policies in the scope of education is to enacted online learning. This policy also had an impact on elementary school education, including Javanese learning. This certainly made children closer to gadgets and requires parents to act as teachers and companions for their children. Students, parents, and teachers must be able to adapt to these conditions and technology will increasingly play a role in the success of online learning (Abidah et al., 2020; Fauzi and Khusuma, 2020; Putri et al., 2020; Rasmitadila et al., 2020; Zaharah et al., 2020).

The existence of technological developments must be utilized by teachers to create effective and meaningful learning in this current information era. Teacher awareness and competence in utilizing technology is very important for today's learning which is more interesting than conventional learning (Obidike et al., 2010; Nincarean et al., 2013; Dewi et al., 2018). Therefore, the development of the Go-Bung (Golek Tembung) as an Android-based innovation application in introducing Javanese language vocabulary to children needs to be done. Go-Bung application is a game-based application for searching Javanese vocabulary by connecting letters into words. In addition, the writing of this article aimed to explain the urgency of introducing Javanese language vocabulary for children of elementary school-age, explaining the stages of developing the Go-Bung application, and identifying the impact of using the Go-Bung application. Implementation of this application is expected to form good collaboration between children, parents and teachers in order to improve the knowledge of elementary school-age children related to Javanese language vocabulary, and to form better quality human resources.

Javanese is one of the local languages in Indonesia which has a large number of speakers. Cohn and Ravindranath (2014) explain that Javanese is the first local language most widely used in Indonesia. Javanese language users when viewed quantitatively are indeed relatively large, approximately 75,500,000 speakers (Subroto and Setyawati, 2007). Besides has many speakers, Javanese also has many variations. This is because the use of Javanese has strict rules due to age-levels, education and the social status of the speakers. Based on this, the Javanese language has many variations to distinguish and respect the people spoken to (Abdollah, 2006). Quinn (2011) explains that there are about 500 to 1,000 Javanese vocabularies that distinguish the level of speech between speakers in daily lives. This has become one of the distinguishing elements of Javanese with other languages.

One of the Javanese vocabularies that is very familiar to every Indonesian is the greeting of mas (Mr.) and mbak (Ms.). Most of Indonesian people feel comfortable to greet men who are more mature or newly known with mas and greeting adult women with mbak. The selection of these two greetings is because the vocabulary is easy to pronounce. In addition, these two Javanese vocabularies are used to honor older people or new people. Thus, it can be said that Javanese is a symbol of a speaker who has character, understands manners, and can respect others. This is because to understand a person's characteristics is not only from his/her lifestyle, clothing, tradition, and art only (Sulistyowati, 2014). However, understanding Javanese vocabulary requires segmentation. This segmentation serves to prevent ambiguity in understanding or recognizing Javanese language vocabulary (Tanaya and Adriani, 2016). Therefore, the introduction of Javanese language vocabulary must be sought early because it can affect the increase in children's communication success.
Childhood especially in elementary school-age has a very good opportunity to learn. In fact, at this time they are called golden-age children (Kustiono et al., 2018). This is because at this time the condition of children is very easy to be taught about something. In addition, children also have very high learning abilities because of their high curiosity, especially in early childhood. Thus, the age of children is a golden age so that at that time child development must be optimized (Burhaein, 2017). This is because education at the age of children will be a determinant of a person's quality when growing up (Ferdiawan and Putra, 2013).

One of the most appropriate ways to optimize golden age is to provide education in a way that children like. This method is an action that can be done with things that are fun and close to the children such as by conducting game. This relates to one of the characteristics of elementary school-age children who like to play (Abdul, 2009; Pranoto et al., 2014). Playing game also plays an important role in the physical, cognitive and social development processes of children (Goldschmidt, 2020). If it is associated with the current digital era, educational games can help optimize children's development in a fun and enjoyable ways.

Communication and information technology is a form of the process of applying knowledge and skills by humans to forward messages with the aim of making it easier for humans to solve problems of passing information (Setiawan, 2017). One example of the results of advances in information technology is the android application. Through the android application, humans especially children can obtain information easily. Not only that, they can also get amusement or recreational effect easily and comfortably.

The process of technological development does not always have the positive impact that we want (Setiawan, 2017). Examples of negative impacts in the scope of education such as students who can not be separated from the gadget and its applications that result in a lack of interest in reading books, easy access to information such as pornography, and making the nation's generation that has the nature of individualism. Meanwhile, positive impacts such as making students have broad insights, have good skills in the field of technology, and can also be used to increase their knowledge about vocabulary.

The positive impact of technological development must be put to proper use especially in the field of education. The development of digital technology must be used carefully in order to produce learning opportunities and recreational experiences in children both preschool and school age (Barreto and Adams, 2011). Educational technology is the hottest issue in this digital era, because technology is the solution in solving an educational problem (Nurdyansyah and Fahyuni, 2015). Utilization of technology for various media can increase the number of opportunities and creative challenges in the world of education, especially basic education in children (Raja and Kumar, 2010). Technological advancements and various impacts cannot be avoided anymore because technology will continue to develop following the pace of scientific development. In this condition, humans only have the duty to be able to control themselves, minimize negative impacts, and make maximum use of positive impacts. This means that every human being in the current era is demanded to be ready to accept the development of the times (Rondiyah et al., 2017). Therefore, the development of technology and interactive media can be utilized by optimizing opportunities to achieve social, emotional, physical, cognitive, and linguistic development of children well (Schomburg et al., 2012). Utilization of technology adapted to the age and
environment of children can support them to find new experiences and develop their creativity (Lazar and Irena, 2014).

**METHODOLOGY**

The method used by researchers was a mixed method. The data analysis process was carried out using qualitative analysis (Ary et al., 2010). Descriptive research is characterized by detail explanation of an event with words and intangible numbers or statistics (Lindlof, 1994). Descriptive methods used focus on the current problem solving process by means of the data that has been obtained strung together, given an explanation, and analyzed.

Quantitative approach was taken when collecting data, which is collecting data about the habits of children in the gadget usage and the use of Javanese language by elementary school-age children in their daily lives. The first stage (pre-development) data obtained from 60 respondents of elementary school-age children uses a closed questionnaire so that the results obtained are more accurate. This method was used because it has several advantages, such as being able to get a clearer description of the frequency of the gadget usage by elementary school age children every day, the use of Javanese by elementary school age children when communicating, could observing problems faced by elementary school age children while doing tasks related to Javanese subjects due to the low mastery of vocabulary, and can be used as a reference for conducting a media development in the form of an android application. After the development was complete, the second stage of data collection (post-development) was carried out by testing the application of 6 respondents of elementary school age children through written responses. The qualitative analysis was conducted to explore the perceptions of respondents who have tried the application by providing information about their experiences related to the operation of applications developed on each gadget. Furthermore, the data in the second stage was analyzed and used as a basis for discussion.

**RESULT AND DISCUSSION**

**Go-Bung Application Development Stage**

The development stage of the Go-Bung application was carried out on the basis of the pre-development research that has been carried out. The high level of gadget usage by children is being the basis and opportunities for the development of this application. The percentage level of gadget usage by elementary school age children can be seen in the following table.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Already use gadget</td>
<td>85%</td>
<td>15%</td>
</tr>
<tr>
<td>Often use gadget</td>
<td>63.3%</td>
<td>36.7%</td>
</tr>
<tr>
<td>Everyday use gadget</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Use gadget for gaming</td>
<td>48.3%</td>
<td>51.7%</td>
</tr>
<tr>
<td>Gadget gaming addiction</td>
<td>31.7%</td>
<td>68.3%</td>
</tr>
</tbody>
</table>

(Source: author)

In the process of developing the Go-Bung application (*Golek Tembung*), there are four interrelated and coherent stages. Based on Van Every (2009), the four stages are:
a. Scenario Design Stage
The scenario design is the main reference in making the application. The scenario on the development of the Go-Bung application *(Golek Tembung)* is divided into four important points in its design. It aims to make the application easier to implement. These four things are as follows: 1. Concept. The application concept begins with the collection of data used to gather needs that will become research material as a basis for creating themes, genres, and scenarios in both online and print media through literature studies and observations. 2. Theme. Determination of the application theme becomes an important stage that will be the core and reference in the application development process. In this case, the theme taken is introducing Javanese language vocabulary to children, especially elementary school age children through game-based android applications as innovations in the field of education in order to realize quality human resources. 3. Genre. Application developed by game-find-words genre which is packaged in a model stringing or connecting letters that appear on the gadget's screen so that it forms a Javanese word. 4. Goal. Goal in this case refers to the purpose of the game or reward (prize). If a player can complete the game in the form of a perfect score, players will get an information from each level played. In addition, the main purpose of developing this application is to increase the knowledge of Javanese language vocabulary in children of primary school age through innovative media development. Furthermore, the Go-Bung application can support the realization of human resources in the field of education and local culture by utilizing technology.
b. Modelling Stage
The modeling stage is the stage for determining the device to be used and designing story boards to create an application. Application materials are part or process of collecting materials and tools to carry out application development. The development of this application uses hardware as a tool for the development of visual and sound assets. Meanwhile, software tools (software) are used to build applications using Quick App Ninja.
c. Production Stage
The stage of producing the Go-Bung *(Golek Tembung)* application with the help of the Quick App Ninja game development online. Here are a few examples of how the Go-Bung app was developed.

![Picture 1. Display of Homepage](image)

This display will appear automatically after the splash screen display or the display that appears when opening the Go-Bung application for the first time. At the top of this display
there is an "About" menu which contains a description of the application, a "Bunyikan" menu to adjust the sound in the game, and a "Level" menu which will be explained in Picture 3.2. In the middle of the display there is a green circle with the words "Main". Players who want to start the game must press the button. The level below is the last level mark that has been played by the player. Meanwhile, at the bottom of the display are four types of social media to share the Go-Bung application and there is an application development software logo.

![Picture 2. Display of Level Menu](image)

Level menu display is a display that contains the levels provided by the Go-Bung application. Each level must be completed in order to continue playing at the next level. Levels that have been successfully completed will be colored, while those that have not been completed will be gray or colorless as shown above. The Go-Bung application provides 30 levels that must be completed by players.

![Picture 3. Menu Display of Go-Bung Game](image)

The Go-Bung game menu display is a work page display containing several letters. The letters must be connected so that they form a Javanese vocabulary. The number of letters provided and the number of words that must be found increases according to the level increase. The "Hint" button is used to open key letters as in the letter U with a purple circle.

d. Testing Stage
This stage is carried out after completing the production stage and all data has been entered. The first time is to do a modular testing to ascertain whether the results are as desired. An important thing is the application must be able to run well in the user's environment. Users feel the ease and benefits of the application and can use it themselves, especially for educational and interactive applications. Of course, the writer's team has tested six
respondents of primary school-age children who are indeed the targets of the Go-Bung application development.

The introduction of Javanese vocabulary needs to be done early on in children, especially to elementary school-age children. Language, especially Javanese, has a role as a very important character building tool because language describes the personality of the speaker. However, most elementary school-age children have not been able to get used to communicating in the appropriate Javanese language as follows:

Table 2. Questionnaire Results Data of Children’s Experience in Using Javanese Language

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Javanese as a language of daily communication</td>
<td>80 %</td>
<td>20 %</td>
</tr>
<tr>
<td>Able to apply Javanese language</td>
<td>35 %</td>
<td>65 %</td>
</tr>
<tr>
<td>Have learned Javanese with various polite terms</td>
<td>50 %</td>
<td>50 %</td>
</tr>
<tr>
<td>Having obstacles to understanding the meaning of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Javanese vocabulary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often complain if there are tasks / tests in</td>
<td>41.7%</td>
<td>58.3%</td>
</tr>
<tr>
<td>Javanese</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: author)

The habituation of using Javanese with the application of polite terms and manners, which is appropriate in daily lives both at home and at school, has a profound effect on fostering children's character. Children who are well-acquainted with Javanese language or vocabulary in communication will be judged to have high politeness by the interlocutors. In addition, high Javanese language vocabulary knowledge can make it easier for children to communicate with anyone, both with peers and parents. Thus, 70% of 60 respondents related to the understanding of Javanese language vocabulary experienced can be lowered.

Meanwhile, habituation done at home by parents and habituation at school by teachers regarding the use of Javanese in communicating must be in accordance and synergistic (Hamzah, 2011). The effort to introduce Javanese language vocabulary to children is expected to be able to realize Javanese proverb: wong Jawa aja nganti ilang Jawane (Javanese hopefully don't lose his Javanese culture). Thus, the introduction of Javanese language vocabulary early on in elementary school age children can revive a sense of cultural love that is starting to fade. In addition, the introduction of vocabulary can also be useful to preserve local culture, namely Javanese language as Javanese tribal culture by the younger generation and can form a qualified young generation.

The Go-Bung (Golek Tembung) application has a positive impact in increasing children's knowledge of Javanese language vocabulary. Go-Bung application with a game model looking for Javanese words from random letters can stimulate children to think carefully, and thoroughly. Respondent A explained that the higher the level, the higher the level of difficulty so that it requires the child to be more observant. This is in accordance with the opinion of Goldschmidt (2020) that this application can improve children's cognitive development. In addition, the Go-Bung application can train the sensitivity of children related to the Javanese vocabulary that is already known and has never been known. Respondents also explained that the game on the Go-Bung application is fun, interesting, and easy to play. This is a plus for the Go-Bung (Golek Tembung) application.

The use of the Go-Bung application requires guidance from Javanese language teachers and parents to children. This is in accordance with the opinion of Voulgari and Komis (2011)
that collaboration and interaction are very necessary in collaborative learning because it can trigger children's cognitive processes, especially through game-based android applications. Parents can accompany their children when playing the Go-Bung application to direct children to find words. Parents can explain to their children about the meaning of words that have been discovered and not yet known by children. Two-way interaction has implications for the quality and success of children in education (Rudasill, 2011). In addition, the participation of parents in the use of the Go-Bung application can also increase knowledge of Javanese parents' vocabulary. If parents have not been able to explain to their children, parents can ask for guidance from Javanese language teachers. Teachers will more easily educate their students related to Javanese language supported by other coordinating media. The Go-Bung application can certainly be used as an interactive and creative learning media innovation so that it is liked by students. Especially during the Covid-19 pandemic, the Go-Bung application can make online learning Javanese easier to be done. Thus, the introduction of Javanese vocabulary can be done in the classroom and at home easily with the Go-Bung application. This effort to introduce Javanese language vocabulary can also maintain a good and correct arrangement of Javanese language so that it can overcome the linguistic phenomena that often occur namely mixed code (Saddhono and Rohmadi, 2014). Not only that, the addition of vocabulary understood from the Go-Bung application can also increase children's success in communicating with others and overcome the obstacles that Javanese learning is often experienced.

CONCLUSION

The high intensity of the gadgets use in elementary school-age children has shifted their attention and so did their parents. This can be seen from the phenomenon of elementary school-age children who experience obstacles related to understanding Javanese language vocabulary which had negative impact on the education and social scopes. Go-Bung (Golek Tembung) application is released to overcome those problems. This is an android-based application which aimed to introduce Javanese language vocabulary especially for children. Go-Bung application has been developed through four coherent stages. The Go-Bung application collaborates and educates elementary school-age children about Javanese language vocabulary in an easy, interesting, and fun way based on technology. Through the Go-Bung application, elementary school children as the next generation of the nation can inherit and conserve local culture while keeping abreast of technological advancements. In addition, the Go-Bung application can be used as an interactive learning medium and support the success of distance learning in Javanese. The Go-Bung application can help teachers deliver Javanese language material during the Covid-19 pandemic. Of course, this effort cannot be separated from collaboration and interaction between children, parents and teachers (especially Javanese language teachers). Thus, children's understanding of Javanese language vocabulary can be increased and quality human resources can be reached through innovation in the field of education and local culture.

REFERENCES


