The Production Planning of Bugis Digital Language Dictionary Program, Bugis-Indonesia/Indonesia-Bugis-Based Operating System Android Smartphone

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Abstract: The purpose of this research design and create a Bugis digital language dictionary-based Android. This design is expected to attract interest in learning Bugis language. Bugis digital dictionary language can be one of general media archive in Indonesia and specially South Sulawesi. This type of research is educational Research and Development (R&D) which is the process used to develop and validate a product of education. The methods of collecting data are used such as questionnaires, observations, interviews and documents. The trials of Bugis digital language dictionary is conducted to determine the design and manufacturing of Bugis digital language dictionary, Bugis-Indonesia/Indonesia-Bugis-based operating system android can run well.

Key words: Bugis, digital, language, dictionary, educational

INTRODUCTION

Globalization is understood as an economic activity, technology and communications. The information revolution leads us into the third millennium that not only offer new opportunities but also new challenges for mankind. Living conditions have improved at the same time has created a disparity in between people who live in developed countries with people living in the developing countries and the least developed countries (Levitt, 1983). These periods we may not avoid globalization wich has changed the society who do not know anything that society become intellect. Indonesia has felt globalization since the middle of the 20th century in this case the society of Indonesia are already to be prepared to accept the entry of foreign influence on every aspects especially in Indonesian culture.

Over time the original art and culture will gradually change due to guidance of time. In Western culture that began in the Renaissance era. When vasco da Gama as a representative of Western culture successfully circumnavigated Africa and landed in Calicut then unfurled for the whole of Asia a new history. Meeting with the European nations have introduced to our culture elements, namely science and technology, social systems, tools, languages, the arts (literature, dance, music, construction) and religion. The most important elements of culture is language. According to Kluckhohn, there are seven elements in culture one of which is language. A language is so important developed progress a country, especially in Indonesia. Indonesia currently has a unifying language that is Indonesian. Sumpah pemuda icon enough to speak a lot in determining the fate of the various regional languages in our beloved motherland.

Since 1970, the handling of language in Indonesia is based on the National Language Politics and Decision Congress of Indonesian. Since 2004, the National Language Politics and the decision of the congress over a draft bill that eventually Linguistic born in the form of law number 24 year 2009 on July 9, 2009. Furthermore, since 2009, the handling of the language in Indonesia, both the state language, the local language as well as foreign language, based on the law. Based on study 41 and study 42 of law No. 24 of 2009, handling language and literature are the responsibility of local and regional government in the implementation of that responsibility, the local government should coordinate with the central government as a national language policy makers. In addition to the form of more detailed division of labor, it can also be a coordination of facilitation expertise and support resources.

Handling of the language and literature areas are classified into three cases, the development, supervision and protection of language and literature region. Language development efforts to modernize the language through vocabulary enrichment, consolidation and standardization of the language system and the development of harmonic language. In the language coaching is done to improve the quality use of language through language learning and language correctional all different walks of life. In addition, language training is also intended to improve discipline, exemplary and the positive attitude of society towards the

language. Meanwhile, efforts done by keeping the protection and preserve the language through research, development, coaching and teaching. The government policy in preserving regional languages in Indonesia has been pursued fully. However, if seen clearly these efforts do not have major stakes. His role is simply slow and there was no significant improvement. The more running time more and also robbed this heritage. His legacy is invaluable.

Implementation of regional languages in schools the local content did not produce results even displaced by foreign languages. Now with the curriculum 2013, local language is threatened. This local language has been eliminated from the subjects in schools. The removal effect also make weakness to other policies preservation of regional languages, especially local languages in South Sulawesi. South Sulawesi which has the largest area of the three languages, namely Bugis language, Makassar language, Toraja language increasingly marginalized. The language is now considered old-fashione. Even developed at this time, only the use of terms linguistic-porn of this language. Even this language face grew ugly. In fact, this language is so smooth and polite especially the Bugis language.

The original book of I La Galigo which is the sacred book of the Bugis and also a treasure trove Bugis literature worldwide. Most of La Galigo manuscript can be found in libraries in Europe, especially in the Library Koninklijk Instituut voor Taal-Land-en volkenkunde leiden in the Netherlands. This further makes sad. Book 1 La Galigo could be a reference about a variety of things. Although there have been a copy but the existence of the original has been signaled era Bugis language will be exhausted. Archiving should we have we do not have. Although, it must be acknowledged that the Indonesian government is not capable of taking care and safeguard the culture well.

Are there any other ways to slow the flow of Extinction Bugis language can be done in various ways. One of them is archiving Bugis language as a dictionary. Bugis dictionary availabl is very limited now. Indeed, it has mushroomed in bookstores is a foreign language dictionaries and there is no bugis dictionary. This dictionary must be ordered to a particular person and can not be found freely. The Version of dictionary that is now comprised of two versions. A book version which is very hard to find (look for Bookstore in Makassar on 28 until 30 March 2014) and a digital version in the program form. The version in the form of program so interesting, easy and simple although, it still has certain shortcomings, especially in vocabulary. This dictionary ever been able to use the latest version lontara script writing and use Operating System (OS) in the form of windows

(Tino, 2013). Bugis dictionary version based of windows is still considered less efficient. Why is that? In the aera of smart phones today. The entire daily activities can be controlled by smartphone. If bugis Dictionary can be used in smartphones, it is not impossible, Bugis language can be lifted sustainability although slightly.

Globalization also brings positive aspects, especially technology. Globalization is able to produce various models of Operation System (OS) that is different to the smartphone. Starting from Android OS, windows phone and symbian, iOS, Linux, etc. The market now is dominated by smartphone based android. However, an application that supports Bugis dictionary not exist at all. Designed and created the need for Bugis digital language dictionary based android. This design is expected to attract interest in learning Bugis language. This bugis digital language dictionary can be one of general archive media in Indonesia, especially South Sulawesi (Mark, 2010).

MATERIALS AND METHODS

The type of research that we use is education Research and Development (R&D). Research and development is process which is used to develop and validate a product of education. The steps of this process is usually referred to as the cycle of R&D which consists of studying the research findings related to the product that will be developed, develop products based on these findings, the testing in a setting where it will be used eventually and revise it to fix flaws found in the testing phase filed. In a more rigorous program of R&D, this cycle is repeated until the field-test data indicates that the product meets the defined behavioral objectives (Sugiyono, 2011). In this research, the researchers conduct the design and manufacture of products such as bugis digital language dictionary. This study emphasizes how effective and efficient using of bugis digital language dictionary for society. In addition, it is expected to continue to be developed and used by society (Fig. 1).

System planning
Home page: The main menu on the application of bugis digital language dictionary "Bugis-Indonesia/Indonesia-Bugis" based on Android will show the figure such above when we began to access the applications of bugis digital language dictionary. This application has several menu options in main page of bugis digital language dictionary based android which must be selected by the user including: translation menu "Bugis-Indonesia" which has a function to translate the language from the Bugis language into Indonesia language, translation menu "Indonesia-Bugis" almost has a similar function with
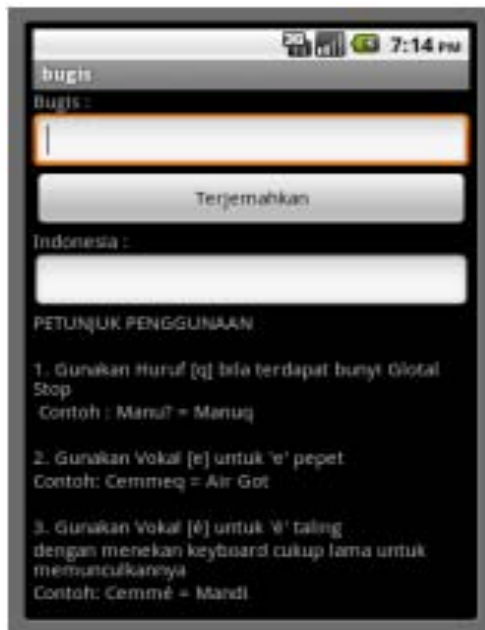
Fig. 1: Main page

Fig. 3: Page menu "Indonesia-Bugis"

language dictionary "Bugis-Indonesia" based Android showing an input and a button to translate the word that has been entered by the user. This input has function to insert the word in Bugis language form that will be sought the meaning into Indonesia language. "Terjemahkan" button has a function to translate the word that has been entered by the user. After entering the desired word and then pressing "Terjemahkan" button, then the results will be sought out through the place has been ready (Plomp, 1994).

Page menu "Indonesia-Bugis": Page menu "Indonesia-Bugis" in application systems of bugis digital language dictionary "Indonesia-Bugis" based on android has a view that is not too different from the "Indonesia-Bugis" menu display with an active input. The active input can accept command word from the user, then the input will be translated by the "Terjemahan" button and the results will be displayed in the next column. "Terjemahan" button has a function to translate the Indonesia language input from the user. The difference here is the input Indonesia language then translated into the bugis language and writing of header and the title of the application (Fig. 3).

The page if vocabulary Bugis-Indonesia is found: Search page menu in the application system of Bugis digital language dictionary "Bugis-Indonesia" based android will display the search results vocabulary has found. If
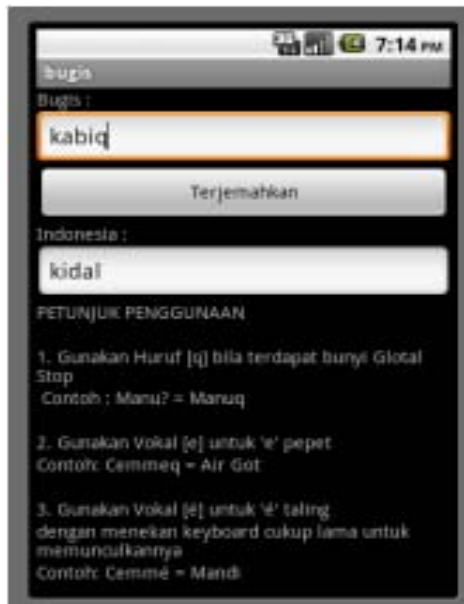

Fig. 2: Menu page "Bugis-Indonesia"

translation menu "Bugis-Indonesia" which is difference by the input of user the input of this menu is translated Indonesia language into Bugis language (Fig. 2).

Menu page "Bugis-Indonesia": Menu page "Bugis-Indonesia" on the application system of bugis digital

Fig. 4: The search page if results is found from user input

Fig. 5: The page if vocabulary is not found

the user has entered an active input vocabulary in the composition of existing programs will be searching and matching input earlier. If the arrangement of words that the program finds a match with 100% precision, the arrangement that the program will display the search results on the mobile phone screen based Android. After the vocabulary has been found, the user can directly enter new vocabulary by clicking on the first input and remove the old vocabulary earlier (Fig. 4).

The page if vocabulary is not found: This page will display an error message on the pop-up menu, if the vocabulary that has been entered by the user on the active input can not be found the word meaning by search system. The page if the meaning of vocabulary is not found the "Indonesia-Bugis" and "Bugis-Indonesia" will have same view. So, the point both of that page has the same function for 2 different menu pages testing phase (Fig. 5).

Test plan: A good system before being used by the public, it is necessary to conduct tests to ensure that system is running smoothly, the author will develop a plan that will be tried, among other things:

- Bugis digital language dictionary application based android requires a user to enter the vocabulary to be searched meaning
- Vocabulary translation trial is conducted by the user, whether to display the required result or not. If the search is correct, it will display the translation result and if they do not find the translation results will display a notification by the system
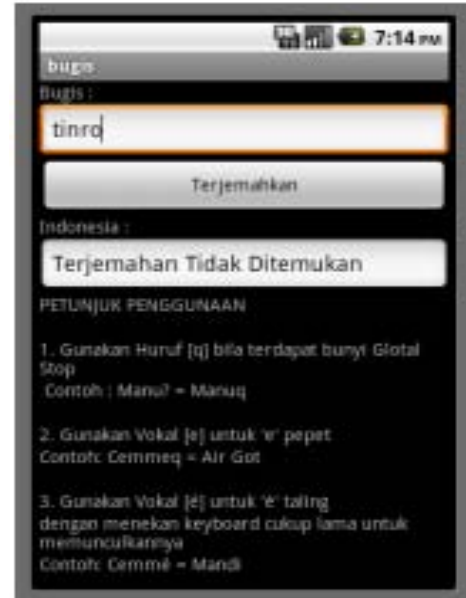
RESULTS AND DISCUSSION

Implementation trial
Install applications trial: At this step will be explained how to install bugis digital language dictionary application which has been made by the author. Here are some steps: to start the installation android application we created, first we need our Android Smartphone connect to a laptop to transfer Bugis Digital Language Dictionary.apk we have made after the smartphone is connected to a laptop and transfer the bugis Digital Language Dictionary.apk into memory smartphone, search where the folder of bugis Digital Dictionary of the English.apk is saved. if the file is found then the display will look like in the picture 7 then click bugis Digital Language Dictionary.apk to install (Fig. 6). After bugis digital language dictionary.apk clicked, it will display a confirmation message and select install (Fig. 7).

At the Fig. 8 indicates that the application installation process bugis digital ongoing. If everything goes according to plan in the sense that there are no problems at the time of application, the lawyer-installan results obtained will be like a Fig. 9 notification that the application has been installed.

Using trial applications: At Fig. 10 the picture shows the design of the interface on the main page of the application system bugis digital language dictionarybased android. Interface design on page Bugis-Indonesia, the

Fig. 6: Connecting smartphone to laptop

Fig. 8: Installation process
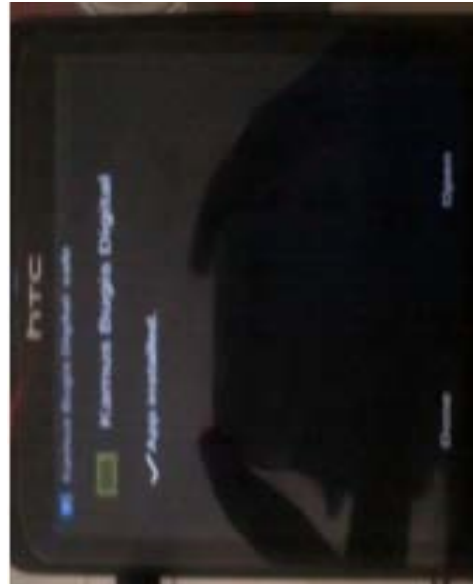

Fig. 7: Confirm applications installation

Fig. 9: Notice that the installation is complete

function of this menu is search for the meaning of words and the bugis language has to translate the meaning that has been sought Fig. 11. At the bottom of the page Bugis-Indonesia there are 2 important points in the form of instructions for use. Point 1 shows how to use a glottal stop. The word has a glottal stop will be added the letter Q to complete the word. The using can be seen in Fig. 12. Point 2 shows how the vowel [e] pepet and vocal [e] taling difference in their using. Interface design of

Bugis digital language dictionary display system if the search system of bugis Digital Language Dictionary success to translate "Bugis-Indonesia" based android wich has fouhnd the meaning of the word, the meaning of "kabiq" is "kidal" (Fig. 13).

Interface design of Bugis Digital Language Dictionary displays system a search failed by the system Bugis Digital Language Dictionary "Bugis-Indonesia" based Android in finding the meaning of the word "tinro"

Fig. 10: Main page bugis digital language dictionary based android

Fig. 12: Search page word, if the word has been translated

Fig. 11: Language menu Bugis-Indonesia

Fig. 13: Search page word, if the word is not found

and the system will display a notification message via the pop-up menu in the form of "Translation Not Found" (Fig. 14). Interface design on page Indonesia-Bugis this menu to search for the meaning of words and the Bugis language has to translate the meaning that has been sought. Interface design bugis digital language dictionary bugis system displays a successful search

system translates bugis digital language dictionary Indonesian-Bugis based on android in discovering the meaning of the left word is dio (Fig. 15).

Interface design bugis digital language dictionary system displays a search failed by the system of bugis digital language dictionary Indonesia-Bugis based android in discovering the meaning of the word is
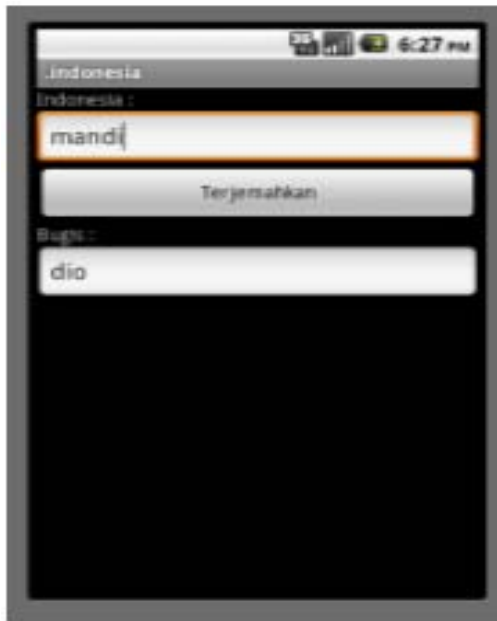
Fig. 14: Menu Indonesia-Bugis language

Fig. 15: Word search page, if the word has translated

gorgeous and the system will display a notification message via the pop-up menu in the form of "Translation is Not Found". The results of testing phase of some of the plans that have been done to prove that the application has been run in accordance with what is desired and their respective functions (Fig. 16).

Fig. 16: Word search page, if the search terms are not found

CONCLUSION

Designing and building application systems of digital dictionary Bugis-Indonesia/Indonesia-Bugis based android starting from system analysis to design the course of this application process. After analyzing the system and obtained how running of applications that we designed before, followed by the implementation of systems analysis into the program arrangement. In the next step is to compile the composition of this program into applications that can run on smartphones. After a series of trials and the results are going according to plan then its final stage is backing this application package in the form of type.apk file to be installed on the smartphone.

REFERENCES

Levitt, T., 1983. The globalization of markets. Harvard Bus. Rev., 61: 92-102.

Mark, L.M., 2010. [Android Programming Tutorials]. LLC Publisher, Indonesia, (In Indonesian).

Plomp, T.J., 1994. Educational design: Introduction educational and training system design; Introduction design of education and training. Master Thesis, University of Twente, Enschede, Netherlands.

Sugiyono, 2011. [Qualitative and Quantitative Research Methods R&D]. Alfabeta Publisher, Bandung, Indonesia, (In Indonesian).

Tino, A.W., 2013. [Dictionary application design Flora and Fauna Indonesia-based android]. Master Thesis, School of Information Management and Computer Amikom Yogyakarta, Yogyakarta, Indonesia (In Indonesian).