Developing an Instructional Media of English General Purpose through Android Based

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Abstract: The purpose of this development research is to develop Android applications as a medium for collage school English general-purpose learning in part of speech for collage school students of first semester of STIT AL-KHAIRIYAH. The development model used refers to the development model of research procedures of Dick & Carey. It begins with an analysis of instructional, analysis of learners and context, research instrument of goal performance, selects materials and developing and evaluating application. To obtain a decent animation media used in the first study validated by expert content, media and teacher/lecturer. Furthermore, the students tested media covering the trial of small and large group trials. Test subjects were students of first semester of Non-English learner STIT AL-KHAIRIYAH among 36 students. Results of the assessment or validation shows that (1) validation of learning material expert, media expert and lecturer are on good qualifying with a mean of 80.34%. (2) Small group trial is on good qualifying, reaching level on 76,67% and (3) large group reach at level 80,12%. This instructional media android based can be useful for lecturer of English as supplement of source learning or module.

INTRODUCTION

(Crystal, 2003a: 6769, Crystal, 2003b: 108-109) estimates that in 2,000 there were approximately 1,500 million speakers of English worldwide, consisting of around 329 million L1 speakers (mostly in inner circle countries), 430 million L2 speakers (outer circle countries) and about 750 million speakers of English as a foreign language in the countries of the expanding circle. English is one of the languages used in almost every country as a foreign or official language. In Indonesia, English is used as the first foreign language as a manifestation of the development of the world of information and mass media. English is spread everywhere, it brings information throughout the world to everyone. Demands for all people to be able to master English are priority of the Countries that do not use English as an official language, because it is an international language. A chance for the world to use it. So for anyone who cannot master English, they will be left behind in terms of information and knowledge and technology.

At present, Indonesian people place at 51th rank in the word as an active speaker of English. (EF Index of English Proficiency in Indonesia, 2018). Given the importance of using English, awareness from the community is needed to improve English language skills. One way to do this is to take an English course at tertiary institutions.

The advances of technology, especially in the term of education has implications for how to use such

technology in the learning process as interesting as possible, utilizing the swift flow of information as effectively as possible as a source of learning and improving the quality of education. This is also followed by the development of cellphones in which there are various operating systems. One of the best-selling operating systems used on cellphones or smartphones is the Android operating system. The operating system is the most important type of system software in a computer system. Without an operating system, users cannot run application programs on cellphones, except the boot application program .

The development of information and communication technology has had an impact on the world of education specifically in a learning process. (Syed Noor-Ul-Amin, 2013). One of the rapid transformations of technology is mobile phone or smartphone, Android is chosen because of the increasing use of Android smartphones. According to Zeman there has been an increase in sales of Android devices in the first quarter of 2012 with 89.9 million units. Android has mastered the smartphone market with a percentage of 59% followed by iOS by 23% (Zeman, 2012). In Indonesia itself, the Android operating system according to Digital marketing research institute Emarketer estimates that by 2018 the number of active smartphone users in Indonesia will reach more than 100 million people. With such a large number, Indonesia will become the country with the fourth largest active smartphone user in the world after China, India, and America (Wahyudi, 2015).

Source:Emarketer
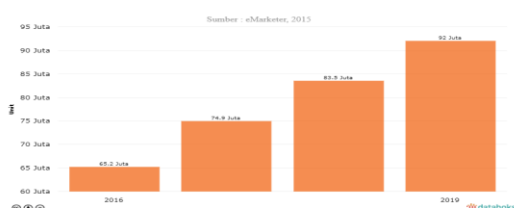
English learning in academic campus includes four language skills, i.e. listening, speaking, reading (reading), and writing (writing). The four skills are mutually integrated each other in the learning process English and is a skill language that must be mastered in learning English.

The problem that often occurs among STIT students is the lack of interest in reading and buying modules given by the lecturer due to the many burdens to buy the books or modules. In addition to the economic conditions of STIT students, the society is in the middle to lower levels.

On the other, It is expected that with this application on the user's smartphone / student, it will make it easier for them to access it wherever and whenever. So later on, it is expected that the application can help users to improve their English language skills. The purpose of the development of Android-based mobile learning itself is a process of learning all the time (long life learning), students / students can be more active in the learning process. The absence of burdensome fees becomes a value for students to be able to access the English 1 module on their respective smartphones.

Referring to these conditions, the suggested solution is to build an Android-based English learning application that can be useful for students, which can be accessed wherever they are and whenever they want, so that it will be a learning medium to help them remember, repeat and practice it. From the author's observation, almost all STIT students already have an android smartphone that supports this English 1 development module.

THEORETICAL SUPPORT

According to Wei-Meng Lee (2011), Android is a comprehensive open source platform designed for mobile devices and developed by the Open

Handset Alliance led by Google. Android can simply be interpreted as a software used on mobile devices that includes an operating system, middleware, and key applications released by Google (EMS Team, 2015).

As explained by some experts above, that the Android operating system is open source (which is an open system) which in this case Google as the owner gives full rights to developers to create, modify android-based applications both free and paid that provided in the Google playstore. For developers, Android provides all the tools and frameworks to develop mobile applications easily, quickly, openly and freely. The Android SDK (Software Development Kit) is a basic element for developing Android.

Clipping, android usage that is so fast makes it an opportunity for developers to compete to innovate to create an android based application. So we cannot avoid the impact in the world of education. Easy access, minimalist production costs encourage writers to be able to develop Android-based English modules.

The design of a media is based on the needs. One indicator is the need because there are gaps in it. The purpose of the gap is that there is a mismatch between what is supposed to be or what is expected and what is happening. The effectiveness of learning is largely determined by the extent of planning carried out by the teaching staff. Learning planning is not just to complement administrative and curriculum needs, but must be designed by involving components of instructional design components which include instructional objectives Dick and Carey, 2009: 4).

Dick, Carey, and Carey (2009: 1) view learning design as a system and consider learning as a systematic process. In fact this systematic way of working is expressed as a model of the system approach. Confirmed by Dick, Carey, and Carey (2009: 3) that the system approach always refers to the general stages of the Instructional Systems Development (ISD) development system. If you talk about design problems then enter into the process, and if you use the term instructional design (ID) refer to the instructional system development (ISD), namely the stages of analysis, design, development, implementation, and evaluation. Instructional design is the umbrella of the field (Dick, Carey, and Carey, 2009: 3).

METHOD

A. Develompent Model

This research is research and development (R&D) which is used to produce the product certain and test the validity of the resulting learning products. The product developed in this research was android-based English learning media for General English Course at 1st semester non EFL student of STIT Al-Khairiyah. Model in this development adapted from the Borg and Gall Model (1983,p.775), learning design from Dick & Carey (2009, pp.6-8), and according to computer-based software development steps Criswell (1989, pp.50-81) in Winarno, et al.(2009, pp.20-21).

B. The procedur of develompent

The development model used is procedural Dick & Carey models. The model consists of 10 research steps in R & D but in this development model only 9 stages are used. This was done with the consideration that the development of teaching materials carried out was limited to the trial of product prototypes. The tenth stage (summative evaluation) was not carried out because it was outside the learning system, so that this development was not carried out. The following development model is presented by Dick & Carey
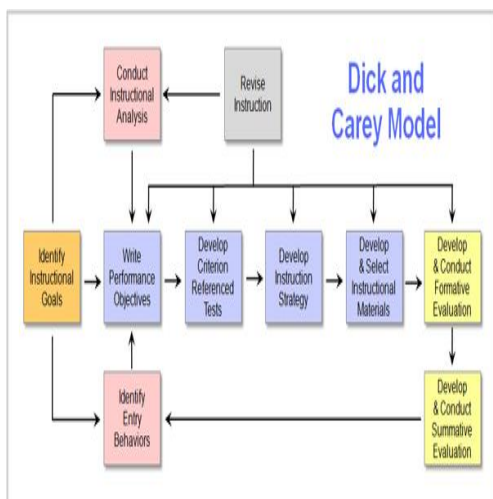
Figure 1. The following development model is presented by Dick & Carey

C. Instrument and Collecting Data

Data used in this study is qualitative data and quantitative data. Data Qualitatively obtained from responses regarding aspects of learning, materials, and media from various sources, namely material and learning experts, media experts and students through questionnaires, and interview guidelines. Quantitative data consists of two types of data. The first data obtained through assessment conducted by material experts and learning and media experts through sheets validation as well as from students through questionnaires. Data of the second quantitative is the value of students on Small and Large group.

D. Data Analaysis Technique

Data obtained from material experts and learning, media experts and students were collected through questionnaires and analyzed with descriptive statistics with percentage and techniques categorization. The data and suggestions are obtained, analyzed and concluded to improve learning media products.

RESULT AND DISCUSSION

Instructional media produced in this research must be truly in accordance with the objectives of the research development itself. The purpose of this development research as mentioned in the preliminary section is to produce learning application media as one of the sources of learning English which is then seen as useful in actual learning. The final result of this development research is an Android-based English 1 learning application product that has been designed and developed based on the Dick & Carey procedural model in an effort to improve English language skills 1 as a general basic course.

Table 1. Results of the expert

No Item	The expert of media	The expert of material	Lecturer
1	4	4	3
2	4	3	4
3	4	4	4
4	4	4	5
5	5	4	5
6	5	4	4
7	5	4	4
8	5	4	4
Sum	36	31	33
Total	100		
average	4,17		

Table 2. Results of Field Trial Assessment (Larger Group)

R	I1	I2	I3	I4	I5	I6	I7	I8	I9
1	4	4	4	4	4	5	5	4	3
2	4	4	4	4	4	4	4	4	4
3	4	4	4	4	4	4	5	4	4
4	3	4	4	4	4	4	5	4	4
5	4	4	4	3	5	4	4	4	3
6	4	4	4	4	5	5	5	4	4
7	4	4	4	4	4	4	4	5	4
8	4	4	4	3	4	4	5	4	3
9	4	4	4	4	4	4	5	4	4
10	4	3	4	4	4	5	5	4	4
11	3	4	5	4	5	4	4	4	4
12	4	5	4	3	4	4	4	5	3
13	4	5	4	4	4	4	4	4	4
14	5	4	4	4	4	5	5	4	4
15	3	3	4	3	4	4	5	5	4
16	4	5	4	4	4	4	4	5	4
17	3	4	5	5	5	4	5	3	4
18	4	4	4	4	4	4	5	3	4
19	3	5	4	4	4	4	5	4	4
20	3	5	4	5	4	4	3	3	4
21	3	5	4	5	5	5	5	3	4
22	5	4	4	4	4	4	3	5	4
23	4	4	4	5	4	4	3	4	5
24	3	4	4	4	4	4	3	4	5
25	4	3	4	4	4	4	3	4	5
26	3	4	4	4	4	3	5	5	3
27	4	4	5	5	4	4	3	3	3
28	3	3	5	4	3	5	5	4	3
29	4	4	4	4	4	4	5	5	4
30	3	4	3	4	4	5	4	4	4
31	3	5	3	4	4	4	5	5	4
32	5	3	5	5	3	4	5	4	5
33	3	4	5	4	3	4	5	4	3
34	4	5	5	4	3	4	5	3	4
35	3	5	5	4	4	5	5	4	4
36	4	4	4	4	4	5	4	4	4
Sum	133	148	150	146	145	151	158	147	140
Total	1318								
Average	4.06								

After the quantitative data from the results of the field trials presented in table 1 and 2, the following steps are carried out to analyze the data above. The percentage of the level of achievement of Android-based English learning media in field of expert trials (small and large group) are as follows:

Based on table 1 produced an average score of 4,17 from results of the expert. By converting the level of percentage of the product, it can be measured at the level of 80,34%. So the application reach a criteria of good score.

Based on table 2 the product score is produced at 230 and the average score is 3.8 by students in the limited test that the criteria were Good (B) with a percentage of 76.67%. Whereas the assessment of students in a broad test with a sample of 36 students obtained a score of 1318 with an average of 4.06 so that it was included in the criteria of Good (B) with a percentage of 80.12%.

The following are the results of the explanation of the menu display in the development of Android English-based smartphones in first semester.

Figure 2. The main menu of the application
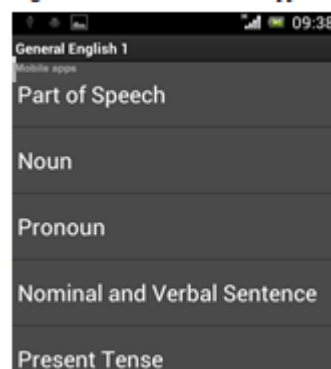
Figure 4. One of the explanation subject

Figure 5. Example

Figure 1. the screenshot of the startup interface

CONCLUSION

Based on the results of the analysis it can be concluded that the product has been developed in the form of an Android-based smartphone learning media on General English purpose material for college students of STIT Al-khariyah. Furthermore, products in the form of Android-based smartphone science learning media-English in part of speech subjects were assessed by 1 media expert, 1 material expert, and 1 teacher produced Good Quality Criteria (B) with a percentage of 80.34%. The limited test was carried out by 6 students and

produced the Good (B) criteria with a percentage of 76.67%.

Whereas in students in the extensive test conducted by 36 students produced the Good (B) criteria with a percentage of 80.16%. Further research is expected to be able to do a disseminate test so that it is able to know the effectiveness of the products that have been developed

Learning English 1 or general English as a general basic course in higher education, with different learning successes has efficiency in the form of greater time savings compared to learning using presentation media. This Android-based English learning application 1 has a good appeal and is proven to increase the motivation of students to remain on their learning assignments.

In other hand, learning media based on Android English can improve student performance by providing opportunities for students to learn independently, repeat material wherever and whenever so that effective foreign language learning occurs and improve student understanding and learning outcomes in learning.

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