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"English First" APK for Facilitating Autonomous Screenagers

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ABSTRAK

Digital sejak lahir atau screenagers tidak dapat dipisahkan dari teknologi dalam pendidikan dan hiburan (edutainment). Fenomena ini memberikan screenagers kesempatan untuk menjadi pebelajar mandiri. Dalam kaitanya memfasilitasi screenagers menjadi pebelajar mandiri, studi ini bertujuan untuk mengembangkan sebuah Android Package Kit (APK) aplikasi untuk ponsel pintar sebagai media pembelajaran. Desain Research and Development digunakan dalam studi ini. Sejumlah 55 mahasiswa semester I yang mengambil mata kuliah English Intensive Course (IEC) dilibatan dalam studi ini. Data dikumpulkan dengan menggunakan pedoman wawancara, analisis dokumen, rubrik penilaian ahli dan sebuah kuesioner. Data yang diperoleh kemudian dianalisis secara kualitatif dan kuantitatif. Hasil penelitian menemukan bahwa mahasiswa memerlukan media pembelajaran yang inovatif, menantang, dan menyenangkan. Selain itu, media pembelajaran yang dikembangkan sebaiknya dalam bentuk aplikasi yang mampu memfasilitasi karakteristik screenagers sebagai pebelajar mandiri. Aplikasi yang dikembangkan berdasarkan pada lima topik yang ditemukan pada dokumen analisis, seperti "Meeting at the Campus", "What You Are Wearing", "Directions", "Weather", dan "Necessity and Obligation". Hasil penilaian ahli menyatakan bahwa aplikasi termasuk dalam kategorikan sangat baik dengan rata-rata skor sebesar 85 serta aplikasi ini membuat mahasiswa lebih antusias dalam proses pembelajaran. Jadi, "English First" dapat digunakan untuk memfasilitasi screenagers menjadi pebelajar mandiri.

ABSTRACT

Digital native or screenagers cannot be separated from technology in education and entertainment (edutainment). This phenomenon gives them an opportunity to be autonomous learners. In order to facilitate them to be autonomous learners, this study was aimed at developing an Android Package Kit (APK) smartphone application as learning media. A research and development design was employed during the study. There were 55 freshmen year attending Intensive English Course (IEC) involved in the study. The data were collected through interview guide, document analysis, expert judgment rubrics, and a questionnaire. The data gained were then analysed qualitatively and quantitatively. The research found that the freshmen year needed innovative, challenging, and fun English learning media. In addition, the learning media would be better in the form of application to facilitate the characteristics of screenagers as autonomous learners. The developed application was based on five topics found in the document analysis, namely "Meeting at the Campus", "What You Are Wearing", "Directions", "Weather", and "Necessity and Obligation". The expert judgment result revealed that the application was categorized excellent with the score 85 and the freshmen were more enthusiastic during the learning process. Thus, "English First" could be used to facilitate the screenagers as autonomous learners.

1. INTRODUCTION

In the 21st century, the learners cannot be separated from technology in their education and entertainment (edutainment). They are surrounded by multimedia and digital devices since in their early age and familiar as well as comfortable with the use of high technology and small screen devices (Novitasari, 2019; Yoon et al., 2013). Thus, the learners are called as digital native or screenagers (henceforth the learners are called as screenagers). Reading information on screen rather than on paper or book, writing by using keyboard or keypad instead of pen or pencil, and finding information on internet despite searching information from libraries are some activities done by screenagers. Education always considers learners and looks for ways to motivate them and incorporating technology in education has become a demand in schools (Al Zieni, 2019; Coman et al., 2020; Ghavifekr & Rosdy, 2015). It is due to the current learners are very familiar with mobile technology, and

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they use its applications in their daily life. This phenomenon would be motivating for them to use mobile technology and its applications in the learning." Therefore, there are challenges for nowadays teachers or lecturers to adjust methods or strategies they teach, to select appropriate teaching and learning media in order to meet the condition and need of the screenagers.

Not only facing the challenge, but the teachers also could take the phenomena about the screenagers as opportunities that allow the learners to be autonomous ones. Autonomous learners could be defined as learners who take more control over their learning both inside and outside classroom (Begum, 2018; Benson, 2001; Uswatun, 2013). Autonomy refers to these following points, (1) the right of learners to determine the direction of their own learning, (2) an inborn capacity which is suppressed by institutional education, (3) situations where learners study by their own, (4) a set of skills which can be learned and applied in self-directed learning, and (5) the exercise of learners' responsibility for their own learning (Benson & Voller, 1997; Çakici, 2015; Yuwono, 2016). It could be pointed out that the principles for facilitating autonomous learners are offering choices and decision-making opportunities, supporting learners, encouraging reflection, encouraging learners' active involvement in learning, as well as providing options and resources. A number of integrations of technology in language classroom has been studied, but there is little empirical research dealing with the use of technology on learners' acquisition of language skills and learner autonomy. The study showed that there was a positive impact of the integration of technology (M-learning) on learner autonomy (Alzieni, 2019, 2021; Melvina et al., 2021). M-learning is a technique that uses mobile and wireless technologies for learning and education (Alsaadat, 2017; Criollo-C et al., 2021; Ozdamli & Cavus, 2011; Rimale et al., 2016; Sarrab et al., 2012). In some levels, the integration enhances learner autonomy and allow the learners the memorization time as well as give them more time for practicing high levels of thinking skills such as application, analysis, evaluation, and creation. Technology, in this context is mobile learning, with its features make it easy for them to learn effectively. Research which states that the students' perspectives towards the use of digital technology in autonomous reading were slightly positive in terms of usefulness, comfortableness, confidence, and satisfaction (Choi & Lee, 2020).

Regarding the characteristics of screenagers and the principle of autonomous learners, it was considered important to develop learning media to facilitate the learning process of nowadays screenagers. The developed learning media, "English First", is targeted for Intensive English Course (IEC), specifically in English Language Education Program (henceforth the application is called as "English First"). The media was based on the course syllabus. Based on preliminary research, it was found that the integration of technology in the learning process, precisely in the learning media, was needed in this course. There were related studies developing technology-based learning media which proved the importance of developing and utilizing learning media in the learning process. The first one was a study about developing mobile application to improve college students' English vocabulary learning. Twenty-four vocabulary learning units presented both in English and Chinese were designed for the learners and they were expected to learn thirty words in each week (Wang, 2017). Another study about learning English as a Second Language (ESL) with smartphone was also done in 2014. A smartphone application was implemented to help the ESL college students to learn English vocabulary. Seven features consisted of spelling, pronunciation, meaning in the Chinese language, synonym, antonym, part of speech and using it in example sentences were designed by the researcher (Wu, 2014). Similar study about developing learning aids on mobile devices which could be used in language courses, specifically for memorizing vocabulary, was conducted in 2013. The vocabulary on the application was based on published textbooks (Dong & Liu, 2013). Therefore, this study was aimed at developing an Android Package Kit (APK) smartphone application as learning media for facilitating screenagers as autonomous learners. A design consisting of need analysis, design, development, implementation as well as evaluation was employed in this study (Robert Maribe Branch, 2009). Android Package Kit or Androgenic is an Android installation package. The package file is in zip and it contains all binary codes, resources, and profiles of the application (Ma, 2017). The application could be installed in the learners' android smartphone in order to provide the options and resources for learning, to give them an opportunity to do reflection toward the learning process, to give them chance to be actively involved in the learning process, and to offer them learning media choices.

2. METHOD

The participants of the present study were the freshmen or the first semester students of English Language Education Study Program and the application developed was intended to support them in learning English, specifically in learning Intensive English Course (IEC). In this course, the participants were exposed to four language skills intensively. Research and Development (R&D) by Branch (2009) was employed in this study which was aimed at developing an Android Package Kit (APK) smartphone application as learning media for facilitating screenagers. It is said that research and development (R&D) is a research which aims to produce a particular product and the product should be tested in term of the effectiveness. Therefore, ADDIE (Analysis-

Design-Develop-Implementation-Evaluation) design model was implemented in this study. During the step of Analysis, preliminary observation, students' interview, and document analysis were conducted. A blueprint of Android Package Kit (APK) smartphone application as learning media then was designed based on the result of Analysis. Continuing to the next step, after conducting the need analysis and designing the materials completely with its assessment and supporting learning activities, the steps of developing the applications was done. There were two media experts and one IT expert examining the application. On the implementation step, a lesson study by Rock & Wilson (2005) was implemented due to the limitation of time. The purpose of conducting implementation step was to identify the effectiveness of English First smartphone-based application developed by the researcher. On the last step, that is evaluation, an evaluation of the application was carried out by administering a questionnaire. The questionnaire was used to gain information about the technical and students' response after using and their willingness to promote the application as learning media for facilitating screenagers.

There are three major sections in this application, namely five topics, bonus and games. "Meeting at the Campus", "What You Are Wearing", "Directions", "Weather", and "Necessity and Obligation" are the topics developed and each of them has language features, vocabulary in focus, language expressions, quizzes (in the form of multiple choices, true or false, fill in the blank, matching, essay or writing prompt), the result of the quizzes as well as the quizzes review. In addition, music (consisting of six songs), three audio books in the form of stories, and videos are provided in bonus section. The mentioned section is aimed at giving the learners opportunity to practice their listening skills. The last section of this application offers two games, that is, "Hotspot" and "Flashcards". Those game were added in the section in order to help the students to enrich their vocabulary. Results are the main part of scientific articles, containing: *final results* without data analysis process, hypothesis testing results. Results can be presented with tables or graphs, to clarify the results verbally. The smartphone-based application was developed after conducting the need analysis and designing the three major sections in the application including the materials, the assessments and the supporting activities. There were three main steps in developing the application. First, it was started with creating the assessments by using iSpring QuizMaker. Second, the step was continued to designing and linking the materials by using Microsoft Power Point. Last, the meta product was organized by using Android Package Kit; Air SDK and Andraided. Continuing the step of development, the application was examined by media and IT experts. There were two media experts and one IT expert examining the application.

The data were collected through students' interview guide, document analysis, expert judgment rubrics, and a questionnaire. The students' interview guide was used to analyse the students' need toward learning media specifically in Intensive English Course (IEC). As the objective of this study to develop "English First" application, the syllabus of Intensive English Course (IEC) was used as the foundation and parameter of designing the application. In this step, an instrument in the form of document analysis was used. To assess the quality of the developed application, expert judgment rubrics were used. The rubrics were focusing on the application and the material in it. There were 32 items in the rubrics and they were created based on several related theories (Alqahtani, 2015; Economides, 2009; Howard & Major, 2004; Jelisaveta, 2013). The last instrument was questionnaire used to obtain information related to students' response towards the use of "English First" application as supplementary learning media. In other words, the questionnaire was used in the last step of ADDIE. Data obtained in this research were analysed quantitatively and qualitatively. In the analysis stage, the result of the interview and the document analysis was analysed qualitatively. In development stage, the result of content validity from the two expert was analysed qualitatively and quantitatively by using a formula from Gregory (2014). Meanwhile the quality of the application was measured by the two expert using a formula from Nurkancana & Sunartana (1992). The formula classified the quality into five rating scale, namely Excellent, Good, Average, Below Average, and Poor. Then, the data related to the implementation of "English First" application were analysed qualitatively and quantitatively.

3. RESULT AND DISCUSSION

English First is intended for Intensive English Course (IEC). It is one of the courses in the first semester of English Language Education. The aim of developing this application was to support the students in learning English, specifically to support and facilitate them to be independent or autonomous in learning. The development of this application was initiated by a process of designing the application from the blue print. Five topics, bonus, and games are the three major sections in English First. The topics developed were "Meeting at the Campus", "What You Are Wearing", "Directions", "Weather", and "Necessity and Obligation". Those topics were developed after need analysis was conducted in the beginning of this study. By having language features, vocabulary in focus, language expressions, quizzes (in the form of multiple choices, true or false, fill in the blank, matching, essay or writing prompt), the result of the quizzes, and the quizzes review, it was hoped that English First would be able to help the screenagers in language studies.

In order to find out the quality of the developed application, there were two media experts and one IT expert examining English First. The first media expert gave 95, the second media expert gave 94, and the IT expert gave 58. Based on those scores English First was categorized as good learning media and there were several suggestions gained from the experts. English First had to be improved in some aspects such as instructions, revision in the picture, materials in vocabulary focus, as well as font and space. Then the step was continued to revision. After being revised, the first media expert gave 99, the second media expert gave 99, and the IT expert gave 59. From those scores, English First could be categorized as excellent learning media. Accordingly, this application could be used as learning media to facilitate autonomous learners. After conducting revision based on the suggestion from the experts, the application was ready to be implemented. The product details after being revised could be seen in the following figures 1, figures 2, figures 3, figures 4.

Figure 1. The main menu in English First

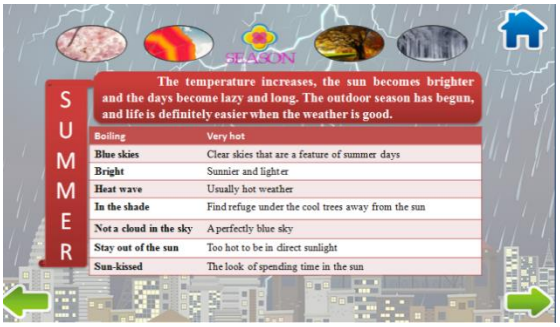

Figure 2. The material in English First

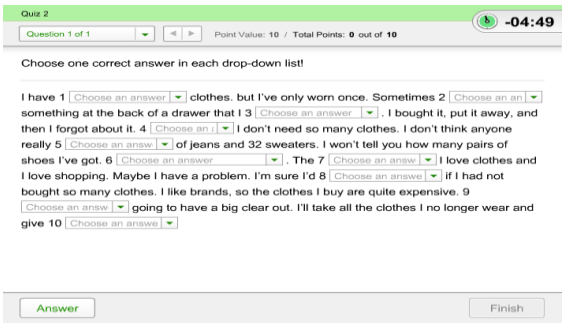

Figure 3. The quiz in English First

Figure 4. The games in English First

English First could be categorized as excellent learning media. Accordingly, this application could be used as learning media to facilitate autonomous learners. This is inseparable from the principles of autonomy were taken into account when developing English First since it aimed at facilitating autonomous learners in their learning process inside and outside classroom. Those principles were learners are able to (1) choose the direction of their own learning, (2) learn by themselves with support from institutional education, (3) learn in any situation by their own, (4) learn a set of skills and apply them in self-directed learning, and (5) do exercise for their own learning (Benson & Voller, 1997). The principles taken into account is explained as follows.

The first principle of autonomy which is about choosing the learning direction of the learners could be applied when the screenagers are able to learn with or without any assistance or being self-directed (Benson & Voller, 1997). It is possible for them to be self-directed since the application offers learning materials completed with exercises as well as review, for instance, in a topic about "Directions", the learners are exposed to language features about explaining directions, vocabulary and language expressions commonly used to ask and give directions. Then, they could have exercises related to "Directions" in the form of multiple choices, true or false, and essay or writing prompt. After doing the exercises, they learners could have the review on what they have done. The second one proposed, was about learning by themselves with support from institutional education. This principle is shown when the screenagers could use English First in learning Intensive English Course (IEC) (Benson & Voller, 1997). Intensive English Course is one of the courses offered in the first semester by English Language Education Program. There are five topics selected from the syllabus and represents each course book. The selected topics were "Meeting at the Campus", "What You Are Wearing", "Directions", "Weather", and "Necessity and Obligation". The third principle related to autonomous learning is that learning could take place in any situation (Benson & Voller, 1997). This is implemented when the screenagers could learn inside and

outside classroom. In the beginning of introducing the application, the lecturers could assist the screenagers by explaining how to install and what features are available on the application. Meanwhile, outside the classroom the screenagers are free to use, learn the topics and practice what they have learned.

The fourth one is about learning a set of skills and apply them in self-directed learning (Benson & Voller, 1997). It is accommodated when the screenagers could learn four English skills, that is, Listening, Speaking, Reading and Writing, as well as enhance their language features and language expressions and enrich their vocabularies by themselves. It could be seen from a topic provided in the application. In the topic about "Weather", an explanation on kinds of weather, language features about explaining weather, vocabulary and language expressions commonly used to express weather could be learned by the learners themselves. Other example taken when the learners could learn four language skills is when they click bonus sections. In the bonus section, music (six songs), three audio books in the form of stories, and videos were designed in order to give the learners opportunity to learn and practice Listening skill. The last principle regarding to facilitate autonomous learners is about doing exercise for their own learning (Benson & Voller, 1997). After learning four language skills through English First, the learners could do exercise or practice their four language skills by answering quizzes which were in the form of multiple choices, true or false, fill in the blank, matching, essay or writing prompt. After they have done with the quizzes, the result of their answer appears and they could do reflection by clicking the quizzes review. The last part on the application is game. There are "Hotspot" and "Flashcards" games in this section. They were designed to allow the learners to do exercise on what they have learned as well as to help the students to enrich their vocabulary.

However, some technical challenges were found by the learners such as the application could not be installed in certain android brand and version. Another challenge was some features like video need to be provided in a clearer sound and a higher definition due to make clearer visual on the application. The challenge could be solved by managing the learners learned in pairs or groups. Hence, all the students had the same chance to use the application. Other challenge was about the sound quality within the video. It could be managed by suggesting the learners to provide headset/headphone when listening to the audio in order to get clearer information from the video. The results of this study strengthen research which states that one way to implement M-learning in language learning is by using mobile application in a smartphone (Tracy, 2015). The application developed can be moved, transferred and easy to be accessed anywhere and everywhere. In addition, the application contains data purposely needed. In this context, the data purposely needed for helping to conduct learning activities. In relation to the implementation of mobile application in learning, Foti & Mendez (2014) strengthen that the implementation mobile application in college students learning supports the learning activities outside the classroom. This was proven that "English First" could be accessed outside the classroom and with no internet connection. The development of this application is in line with a development of Android Application for Language Studies conducted by Dong & Liu (2013). The developed android application was based on published textbooks and it greatly helped the students in their study, precisely in memorizing as well as reviewing vocabulary learned by the learners. In bonus section, music (six songs), three audio books in the form of stories, and videos are provided. The mentioned section is aimed at giving the students opportunity to access the material by themselves and practice their listening skills. It was supported by previous research that by being autonomous was with self-access and especially with technology-based learning (Masouleh & Jooneghani, 2012). The last section of this application offers two games, namely "Hotspot" and "Flashcards". Those technology-based games were added in the section in order to help the students to enrich their vocabulary. A similar study aimed at enriching students' vocabulary through mobile application was also conducted in Taiwan (Wang, 2017). To enrich the college students' English vocabulary, the application was equipped with both English and Chinese descriptions.

During the implementation and evaluation steps of this research, it was found that the student exposure to the language is greater with the application than with printed material and there was more opportunity for them to practice different kinds of exercises outside of the classroom. This is in accordance with the research from Louis (2005), Tayebinik & Puteh (2012), Mejía (2016) and Cojocnean (2017). Besides, to be autonomous learners, the students have started to take control of their learning by participating in decision making with regard to materials, activities and evaluation. What has been done in this research was a part of the implementation of m-learning to facilitate students to be autonomous learners. Through the opportunities provided by the learning devices, teachers and students also will get some benefits of m-learning (Sarrab et al., 2012). They are as follows: (1) It less expensive, as the cost of mobile devices are significantly less than PCs and laptops, (2) Multimedia content delivery and creation options, (3) Continuous and situated learning support, (4) Anytime access to content, (5) Anywhere access to content, (6) Support distance learning, (7) Can enhance student-cantered learning, (8) Great for just-in-time training or review of content, (9) Support differentiation of student learning needs and personalized learning, (10) Can enhance interaction between and among students, learners and instructors, (11) Reduce cultural and communication barriers between faculty and students by using

communication channels that students like. All those benefits were gained by the freshmen year students who have used "English First" application.

4. CONCLUSION

This study was a Research and Development which was aimed at developing an Android Package Kit (APK) smartphone application as learning media for facilitating screenagers specifically for the freshmen or the first semester learners of English Language Education Program. The application is intended for Intensive English Course (IEC) and called English First. During designing the application, proper topics and elements to support the materials to be used in the application were needed. To test the quality of the application, the application was examined by two media experts and one IT expert. As results, the application was categorized excellent. Therefore, the application could be used as learning media which provide authentic learning materials to learn Intensive English Course (IEC) in practicing the students' four English skills as well as facilitating the learners to be autonomous learners. The principles of autonomous learning accommodated by the application were the learners are able to (1) choose the direction of their own learning, (2) learn by themselves with support from institutional education, (3) learn in any situation by their own, (4) learn a set of skills and apply them in self-directed learning, and (5) do exercise for their own learning. " English First" as a learning media and a part of mlearning to facilitate autonomous learners enables access for independent learning with attractive application for digital native learner (screenagers). To sum up, this study suggests that the integration of mLearning in English Language teaching and learning could foster learner autonomy.

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