

Developing Mobile Based Authentic Listening Materials for Senior High School Students

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Abstract: *Using technology in teaching and learning process has become a must in this era, because it facilitates the teachers and students to be connected to the learning materials. The purposes of this research were to develop mobile-based authentic listening materials and to find out the validity and practicality of the developed product. This is a research and development study that followed the ADDIE model. The respondents of the research were the tenth-grade students of SMA Pembangunan Padang. The instruments of this research were need analysis questionnaire, validation sheet, evaluation sheet, and practicality sheet. The results of the study were (1) The listening materials needed by the students and teachers were identified. The authentic listening materials were developed using the android application with Adobe Animate CC 2019 and were validated by two experts in English language teaching and one expert in media development. (2) The developed listening material was valid and practical both by the English language experts and the Media Development expert. Therefore, the developed product is appropriate to be used by the students and teachers as supplementary media in teaching and learning listening skill.*

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INTRODUCTION

Using technology in language learning has become an essential requirement for language teachers (Ammanni & Aparanjani, 2016; Dudeney & Hockly, 2012; Pun, 2014). Technology in the teaching and learning process brings a bunch of benefits for students and teachers. Technology is not something that students need to be separated from learning; it helps students to get involved and learn according to their interests (Pun, 2014). Technology is a valuable and innovative teaching tool to enhance English foreign learner (EFL) learning (Çakici, 2016). Therefore, the use of ICT in education, especially in ELT, has been widely declared as a tool for language teaching and learning.

Pun (2014) states seven advantages of using multimedia technology in teaching and

learning English. Multimedia technology (1) motivates students in learning English, (2) develops students communicative competence, (3) widens students' knowledge about the culture of English, (4) improves teaching efficiency, (5) enhances interaction among students, and between teachers and students, (6) creates a conducive teaching environment in the classroom, and (7) provides opportunities for English teaching outside the classrooms. In addition, Ammanni & Aparanjani (2016) also mention seven benefits of using technology in English teaching and learning; (1) Technology gets the required information within a fraction of second, and learners become more innovative with the help of e-learning, (2) ICT provides the information to the students who will be useful for them to compete with this competitive world, (3)

English lessons that incorporate multimedia applications can exert powerful motivation and provide bored students with exciting new ways to learn, (4) ICT can make students and teachers work with current and authentic sources, (5) ICT ameliorates the learner's interaction and verbalization involvement in collaborative group learning, (6) students can learn independently, and (7) ICT pictorial description is available.

Several types of ICT can be used in teaching and learning, such as television, radio, film, youtube, e-book, audiobook, webinar, interactive whiteboard, mobile application, audio-visual aid, overhead projector/slides, gramophone, film projector, language laboratory, Web 2.0 application, and mobile phone (Ammanni & Aparanjani, 2016). Thus, there are many options to choose from using appropriate technology in the teaching and learning process. Besides, teachers are demanded to be more creative and innovative in creating media by utilizing technology.

Nowadays, learning by using mobile phone is being a burning issue (Artyushina & Sheypak, 2018; Gangaianmaran & Pasupathi, 2017; Hwang, Huang, Shadiev, Wu, & Chen, 2014; Kim, 2013; Mindog, 2016; Salaki, Moge, & Oroh, 2015; Shanmugapriya & Tamilarasi, 2013; Zatulifa, Riswandi, Fitriawan, & Akla, 2018). Mobile learning is one of innovation in using technology in the educational field. It looks like computer-based learning, but mobile learning is more effective and efficient because it is flexible to use. The occurrence of mobile-assisted language learning (MALL) is derived from the concept of computer-assisted language learning (CALL) supported by a valuable learning tool (Shanmugapriya & Tamilarasi, 2013).

Using mobile-based learning media in teaching EFL, students can enhance their English language skills. Mindog (2016) found that using apps helped the student with their four language skills (listening, reading, speaking, and writing), grammar, vocabulary, and spelling. She did a case

study research on the use of smartphone apps to learn English by four Japanese university students. This study provides some evidence that apps can support intermediate English language learners by giving them easy access to English content that caters to their interests. Khubyari & Haddad Narafshan (2016) also researched the impact of MALL on EFL reading comprehension. The result revealed that EFL learners favor reading comprehension via mobile phones due to the convenience facilitated by the portability and accessibility of the mobile phone. The other research has also been done by Gaber (2017) about utilizing Mobile Assisted Language Learning (MALL) to develop EFL listening skills and learner autonomy. The researcher designed the MALL for the learners and did several tests to try out the practicality of the media. The result was using a mobile phone to develop EFL listening skills and learner autonomy for the secondary stage students is more effective (Gaber, 2017).

Among four language skills, listening skill is known as the difficult one to teach and learn by both teachers and students. The existence of listening skills in English subjects is almost neglected in the teaching and learning process because of many reasons. Based on the observation at some senior high schools in Indonesia, it was found that teachers are difficult to facilitate the students with the learning materials and media for teaching listening. Most teachers do not have enough time to create the appropriate media. They rely on the 2013 curriculum book that is provided by the government. However, the listening materials in this book are not as sufficient as in writing and reading materials. They only provide the URLs of the *YouTube* link related to the materials.

Moreover, based on the analysis of the textbook, the materials in those links are quite tricky to the ten graders who are learning the listening skill for the first time (since listening is not tested yet for junior high school students). As a result, there are some problems which affect the students in mastering the listening skill. First, the

learning materials and media to teach a listening skill are limited; as a result, the students have less opportunity to improve their ability. Usually, the teachers use a tape recorder or laptop to play the audio. However, it is only valid inside the classroom; not all of the students have the facilities to practice the listening skill at home. Second, for senior high school students, listening skill is usually taught when they are about to take the final examination. Meanwhile, it should be taught since the first year of the study in order to make them get used to listening to the English audio.

Thus, to overcome the limitation of the listening materials and media, this study aimed to utilize technology by developing a mobile-based media as the authentic listening materials for tenth graders. Then, the developed media should be valid and practical to be used by EFL students.

METHOD

This research used a research and development (R&D) design, which developed the mobile-based application of the authentic listening materials for tenth graders. The listening materials and media were developed by using the ADDIE model. ADDIE is an acronym mentioning the significant process of the research; Analysis, Designing, Developing, Implementation, and Evaluation (Aldoobie, 2015). Analysis stage was conducted in two ways; situational analysis and need analysis. The data about need analysis were collected by using a questionnaire using four scales of Likert scale, conducting observation, analyzing the document, and questionnaire. The data were analyzed by using qualitative descriptive and descriptive statistics analysis. The questionnaire was written using the Likert Scale. Thus, the researcher categorized the students' needs into four categories; low (1-1.74), medium (1.75-2.49), high (2.50-3.24), and very high (3.25-4). The result of the analysis stage was continued to design stage where the researcher designs the materials based on the result of the analysis stage.

Then, the researcher developed the materials based on the design. The experts validated the developed product in order to get an evaluation.

Moreover, the categorization of the product validation was arranged as invalid (5-10), reasonably valid (11-15), valid (16-20), and very valid (21-25). Then, the product that has been validated by the experts was revised and implemented to the user. The data were taken using a practicality sheet. The categories were impractical (1-1.74), fairly practical (1.75-2.49), practical (2.50-3.24), and very practical (3.25-4). The respondents of the research were the English teachers and the tenth-grade students of SMA Pembangunan UNP. The validators of the product were English lecturer of UNP and Information Technology lecturer of IAIN Batusangkar.

RESULTS AND DISCUSSION

Results

1. *The Learning Materials Needed by the Tenth-grade Students*

Two types of analysis had been done in this research; situational and need analysis. There were two activities in situational analysis, observation and document analysis. It was found that the students and teachers were difficult to find out the appropriate listening materials, listening activity was almost neglected during the teaching and learning process, and the media that used by the teachers were ineffective and impractical. Furthermore, the need analysis was conducted by using a need analysis questionnaire that had been analyzed by using descriptive statistics. The result can be seen in Table 1 below.

Table 1. The learning materials needed by the students

No	Statements	Average	Category
1	The monologue audio	3.63	VH
2	The dialogue audio	3.66	VH
3	Talking about self	3.69	VH
4	Congratulating and Complimenting others	3.67	VH
5	Expressing intention	3.68	VH
6	Descriptive text	3.69	VH
7	Announcement	3.65	VH

No	Statements	Average	Category
8	Recount text	3.66	VH
9	Narrative text	3.61	VH
10	Song	3.71	VH

There were two types of audio texts and eight listening topics offered to the respondents. The result was 3.63 points for monologue and 3.66 points for dialogue. It could be implied that the user needs both the monologue and dialogue. Then, the result of the topics needed were 3.69 points for talking about self, 3.67 points for congratulating and complimenting others, 3.68 points for expressing intention, 3.69 points for descriptive text, 3.65 points to the announcement, 3.66 points to recount text, 3.61 points for narrative text and 3.71 points for a listening song. Those results were categorized into very high.

Table 2. The media needed by the students

No	Statements	Average	Category
1	Mobile-based media	3.51	VH
2	The interesting media	3.54	VH
3	The authentic materials	3.49	VH
4	The use of video, audio and picture is important	3.68	VH

The result showed that the respondents' need on the mobile-based media was very high; the score was 3.51 points. Then, the respondents need the media that was more interesting, authentic, and provide the video, audio, and picture. The score was 3.54 for the interesting media, 3.49 for the authentic materials, and 3.68 points for providing video, audio, and picture was 3.68, the result was categorized as very high.

2. The Design of the Listening Media Needed by the Students

Based on the need analysis step, there were eight topics related to listening skills: talking about self, congratulating and implementing others, expressing intention, announcement, descriptive text, recount text, narrative text, and song. The design of the listening media is written in figure 1 (see appendix).

There are several menus in the listening media, (1) Content Mapping –describes KI

and KD of the learning materials; (2) Listening Materials – consists of materials and learning exercises; (3) Listening Strategy – provides the listening strategies consist of top-down and bottom-up strategy; (4) Sources – list of the sources; (5) Information – provides the information about authors; (6) Help – information about the procedures to cover the application error; (7) Direction - the guidance for the user.

3. The Development of the Product

Two steps had been done in developing the listening media; developing the listening materials and developing the mobile application.

3.1. Developing listening materials

The listening materials were designed by following the result of the analysis. Several steps had been conducted in developing the listening materials.

- 1) Writing the draft of the learning materials. It consists of the concept that should be understood by the students, such as definition, social function, generic structure, the expression, the formula, and the example.
- 2) Writing the detailed exercises that should be provided in the learning materials based on the needs of the curriculum. There were three types of exercises: multiple choices, true and false, and short answer. The sub-skills that should be mastered by the tenth-grade students are: listening for gist, listening for specific information, listening for phonological recognition, and listening in detail.
- 3) Searching the appropriate listening materials. The authentic listening materials can be found in newspapers, radio, TV programs, announcements, etc. The most significant source of authentic material is the internet. The researcher searches for the appropriate materials based on the topics needed by following the needs of the curriculum (KI and KD).
- 4) Editing the audio based on the needs. This step was conducted using the WavePad application.
- 5) Writing the learning materials and exercises in Microsoft Word.

6) Evaluating the developed materials.

3.2. Developing the mobile application by using Adobe Animate CC.

The developed listening materials were converted into a mobile application by using Adobe Animate CC. Several steps should be done;

- 1) Choose the provided template size based on the needs.
- 2) Set the background of the template by using pictures.
- 3) Transform the developed materials into the slides.
- 4) Write the code for the button.
- 5) Create the certificate of the application by following the direction.
- 6) Publish the file into the application.

3.3. The Developed Product

The prototype of the product can be downloaded on https://drive.google.com/file/d/1KDPmEVJhU1xKnF2Iz-rT_6F9w2nQ6_Pd/view?usp=drivesdk. The product provides several features: KI and KD, Listening Materials, Sources, Listening strategy, information, help, and direction. The screen captures of several features of the developed product are provided in the appendix (Picture 1, 2, 3, and 4).

There are seven menus provided in the application (see picture 1), KI and KD, Listening Materials, Listening Strategy, Sources, Information, Help, and Direction. The second picture is the screen capture of the listening materials menu provides materials and exercises. Materials menu provides definition, social function, language features, and example. Exercises menu consists of multiple choices, true and false, and short answer.

4. The Validity and Practicality of the Product

4.1. The validity of the product

In order to make sure that the product was appropriate for the tenth graders, the researcher validated the product to the experts; they were English lecturer, technology information lecturer, and English teacher.

Table 3. The Product Validity by English Experts

No	Indicators	Sub-Indicators	V1	V2
1	Learning Materials	Relevance to the curriculum	4	5
		Audio materials	4	5
2	Exercise	Instruction	5	4
		Listening Sub-skill	5	5
3	Display Quality	Audio, picture, video	5	4
Total			23	23
Category			VV	VV

There were three indicators validated by the English experts; materials, form of the exercises, and the display. The first validator gave 23 points that could be categorized into very valid (VV). The second validator also gave 23 points that could be categorized into very valid. Overall, it could be concluded that both of the validators stated that the authentic listening materials application is very valid. Meanwhile, there were several suggestions from the Experts: change the play and stop button in the application, present all questions in a slide, and write all of the instructions in English.

Table 4. The Product validity by experts of media development

Aspects	Score	Category
Software	3.75	Very Valid
Visual Communication	3.71	Very Valid
Total	7.46	
Average	3.73	Very Valid

The technology information lecturer validated the media. Two aspects had been validated by the experts, software and visual communication. The results were 3.75 points for the software aspect and 3.71 points for the visual communication aspect. The average score was 3.73, which was categorized as very valid. In addition, the validator suggested adding pictures in the media.

Table 5. The Product Evaluation by the Teachers

Aspects	Teacher 1	Teacher 2	Average
Software	4	4	4
Material Design	3.7	3.5	3.6
Visual Communi- cation	4	4	4
Total	11.6	11.5	11.6
Average	3.88	3.83	3.86
Category	Excellent	Excellent	Excellent

Three aspects were evaluated by English teachers: software, materials design, and visual communication. The result was 4 points for software aspect, 3.6 points for materials design, and 4 points for visual communication. The total average was 3.86, that categorized as excellent.

4.2. The practicality of the product

The product practicality was also tested after implementing the product to the students. The practicality sheet was used as the instrument. There were five indicators in the practicality sheet: the use of the product, the language used, the benefit of the product, the media used in the product, and the time relevance. The results were: 3.12 points for the use of the product, 3.25 points for the language used, 3.12 points for the benefit of the product, 3.05 points for the media used in the product, and 3.15 points for the time relevance. The average score was 3.14 points that categorized as practical.

Based on the result of the analysis, the students need eight listening topics to be provided in the android based media: talking about self, congratulating and complimenting others, expressing intention, descriptive text, announcement, recount text, narrative text, and song. The materials were developed by following the curriculum. The features provided in the application were; KI and KD, listening materials, listening strategy, sources, information, help, and direction. The materials consist of the concept-definition, social function, language features, generic structure, structure, example-and exercises-multiple choices, short answer, true and false.

Furthermore, the validity and practicality of the developed product have been tested. The result of product validity based on the English expert was 23 points that can be categorized into very valid. Moreover, based on the analysis result of the validation sheet from the experts on media development, authentic listening materials application is very valid, with a score of 3.73.

Moreover, product practicality also tested by using a practicality sheet. The result shows that the product was practical, with a

score of 3.14. Based on the result it can be concluded that; (1) the application is easy to be installed, (2) the media is easy to be used, (3) the direction is clear, (4) the instruction is easy to understand, (5) the authentic listening application is motivated, (6) the media is helpful to enhance listening skill, (7) the audio and video is clear, (8) the media can be used anywhere and anytime, (9) the media can be used for a long time.

Based on the result of the findings, it can be stated that the authentic listening materials application is valid and practical to be used by the students as the listening media.

Discussion

The potential of ICT in supporting teaching and learning skills should be utilized in teaching listening skills. Teachers are demanded to be more creative and innovative in creating teaching media for teaching listening skills. The mobility and accessibility of mobile phones led the researchers and teachers to provide the listening media-based mobile (Gaber, 2017; Khubyari & Haddad Narafshan, 2016; Shanmugapriya & Tamilarasi, 2013). There were many advantages of using mobile applications as learning media; mobile devices feature personal, situated, authentic, spontaneous, informal, and continuous access (Kukulka-Hulme & Shield, 2008).

The result of the research found that the learning materials and the media that were used to teach or learn could not be separated; they became inseparable things. This is in line with Pun (2014), who said that technology could not be separated from learning. Based on the research, students showed a keen interest in learning by using mobile devices, and they were highly motivated by the unique experience of learning content that supports multimedia objects (images, audio, video, and animation) for developing the listening skill (Shanmugapriya & Tamilarasi, 2013).

The listening materials have been developed based on need analysis; therefore, the products were considered to be valid and reliable in content (Brown and

Abeywickrama, 2010; Zaim, 2016). The developed products have also been evaluated and validated by experts of English teaching and expert in technology information related to the content, material design, software, and visual communication. Validity is an essential aspect in order for a product that can be used in the teaching and learning process.

Practicality is also an essential aspect of implementing the product in the field (Shanmugapriya & Tamilarasi, 2013). The developed authentic listening materials application was practical to be used in the teaching-learning process. This finding confirmed the similar research done by Munir & Hartono (2016). They highlighted that authentic materials are benefit sources of information for students. Therefore, this mobile-based authentic listening materials can be used to support students and teachers in the teaching and learning process of listening.

CONCLUSION

Utilizing technology in the teaching and learning process can ease the teacher and learner to be connected with the learning materials. There are two types of technology that commonly used in the teaching and learning process: CALL (Computer Assisted Language Learning and MALL (Mobile Assisted Language Learning). Based on the result of observation, most of the tenth-grade students have been facilitated with a smartphone. Furthermore, the smartphone is mobility and accessibility than a computer. It brings more opportunity to the teacher and students to be connected with learning materials because it can be provided in one device and can be accessed anywhere and anytime.

Based on the result of need analysis, the students need the listening materials and media that can be accessed anywhere and anytime within an internet connection or not. The mobile devices provide many functions that support the listening materials to be more attractive and interest. It supports video, audio, and pictures to serve as the

materials in teaching and learning. Moreover, the materials needed by the students based on the curriculum were talking about self, congratulating, and complimenting others, expressing intention, descriptive text, recount text, narrative text, and song. There are several features provided in the listening media, KI and KD, listening materials, sources, listening strategy, information, help, and direction. The prototype of the listening application was very valid based on the result of experts' validation. Moreover, the prototype has been implemented to the tenth-grade students. The result of students' responses explained that the media was practical to be used by the tenth-grade students as the supplementary media in learning the listening skill.

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APPENDICES

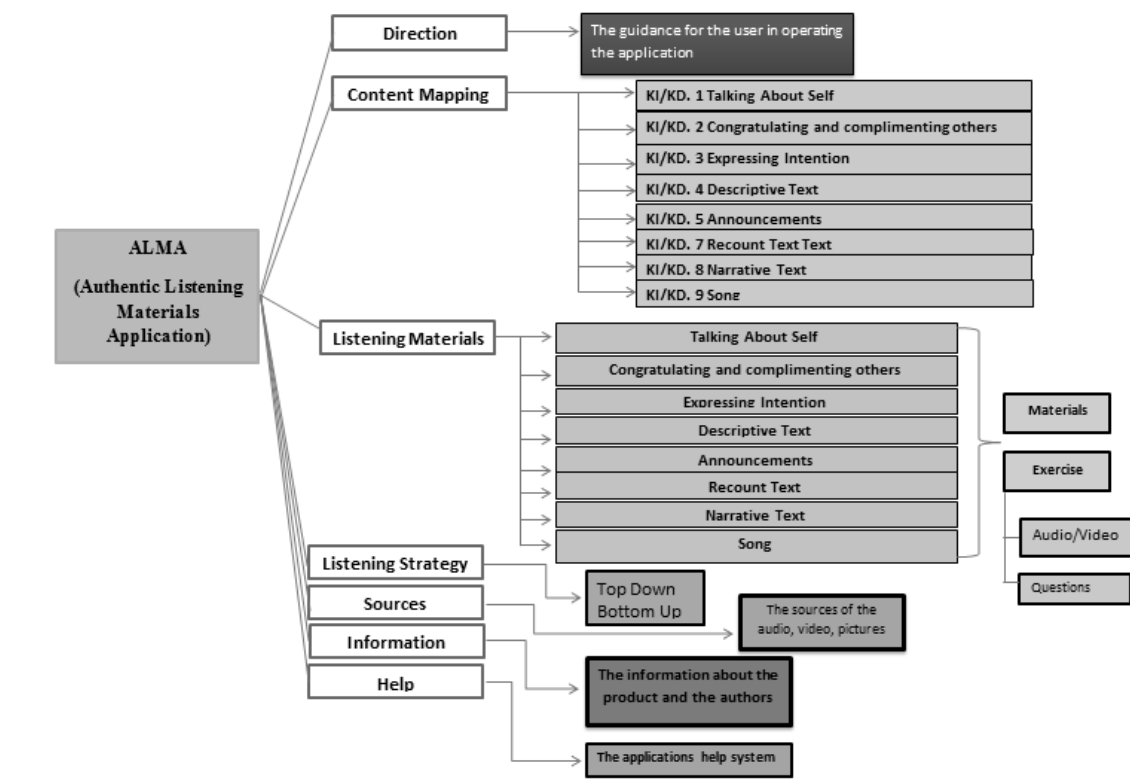
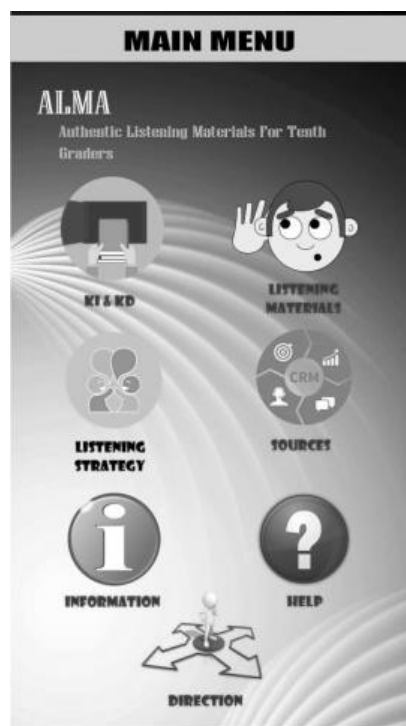


Figure 1. Design of the Authentic Listening Materials Application



Picture 1. Main Menu



Picture 2. Listening Exercises



Picture 3. Listening Exercises



Picture 4. Multiple Choices