

**DEVELOPMENT OF INTERACTIVE LEARNING MEDIA
BASED ON TELEGRAM BOT
IN INTERMEDIATE LISTENING COURSE OF UNIROW TUBAN**

Ulfa Yuliasari

Mochammad Umar

ulfa.yulia11@gmail.com

umar3523@gmail.com

Universitas PGRI Ronggolawe Tuban

Jl. Manunggal No.61, Wire, Gedongombo, Kec. Semanding, Kabupaten Tuban,
Jawa Timur 62381

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Corresponding Author:

+62 896 87019845

Abstract:The aims of this study were To find out the Development of Interactive Learning Media Using Quiz Bot Telegram in the second semester Intermediate Listening Course at UNIROW Tuban. This research used Research and Development (R&D) model ADDIE. The subject of this study was an intermediate student listening course of English education in the second semester Unirow with 15 students. The techniques of data collection questionnaire technique. The data analysis used is quantitative data analysis. The results of the research get the percentage of material expert validation obtained 90% results, media expert validation obtained 92% results, then student respondents got 96% results which indicated the "very wothy" criteria. Based on the results of research, it can be concluded that the development of interactive learning media based on Telegram Quiz make students interested and feel positive about using this interactive learning media based on Telegram Quiz Bo in learning process.

Keywords – ADDIE, Quiz Bot, Interactive Learning

INTRODUCTION

In the 21st century, every educator should be ready to educate Generation Z students who have expertise in using technology, especially learning aids such as gadgets or laptops. According to (Wardhono, 2018), he stated that "if you want them to learn from you, you have to connect to their level. Technology cannot replace the role of educators, it will help them, so they must master it to exist". Therefore, educators must be able to balance and have the responsibility to prepare the materials needed for current and future learning activities. Less interesting learning can reduce student motivation in learning.

Utilizing technology by using a smartphone to be a learning medium is one way to keep pace with students in the digital age 4.0. Educators need to use technology to innovate in packaging materials and make it easier for students to understand faster and more accurately, which is why an accurate learning medium is needed.

According to (Shalikhah, 2016), interactive learning media are intermediaries in conveying information, providing learning in 3D, sound, graphics, video, animation, and creating interactions. Interactive learning media is a media that is equipped with a controller that can be operated by the educator and the educator can also choose what the educator wants for the next process. Interactive learning media has a goal to present information in a form that is fun, interesting, easy to understand, and clear. Information will be easily captured because as many senses as possible, especially ears and eyes are used to absorb information. This research is very important as an illustration of efforts related to online learning at a time like this, namely the epidemic period as well as the modern era.

The resulting media will facilitate the teaching and learning process. This can be happened because the media produced is teaching materials that use interactive media. All components needed in learning are contained in the media. With the use of interactive multimedia in learning activities, students become more active than in ordinary learning. (Praheto & Sayekti, 2019) that students need attractive multimedia to avoid boredom. The use of interactive learning media in learning conditions in a new civilization is important because it can balance technology and education, especially in the listening learning process.

Listening is one of the English classroom skills that every student learning English should have. According to (Mahbubah et al., 2019), listening requires intensive training. This is because when listening, students have no control over the speaker's audio speed and lack of vocabulary, making it difficult for students to understand the most important aspects of listening. From the above statement, it is clear that due to lack of practice, students may find it difficult to hear or understand how to incorporate the speaker's content. Therefore, educators must prepare suitable learning media for listening learning so that students can study comfortably even at long distances.

Lately, there are many kinds of new applications that can be used to learn English, especially for using gadgets for example Duo Lingo; Hello English; Grammarly and Telegram. These applications encourage self-directed learning, realistic language practice, interactive learning, student control, and fun in learning as students learn using devices or gadgets they are familiar with. (Rajput & Thakur, 2014) stated that M-Learning provides

anytime, anywhere educational and life-enhancing content delivered through mobile technology. This shows that the use of applications in gadgets will make it easier for educators as well as facilitate communication with students in the context of appropriate use.

In this study, the researcher focused on developing the use of Telegram in listening learning. According to (Mazer et al., 2007), the use of Telegram as a language learning medium actively encourages a cooperative environment, builds positive attitudes, increases student motivation and participation, and maintains teacher-student relationships. Based on (Lestari & Wardhono, 2020) statement, the mobile technology that can be used to help students learn foreign languages is Telegram. In other words, this application will provide more opportunities for students to do assignments or study wherever and whenever they want. Based on the statements above, the researcher concluded that by using the Telegram application the level of interest and learning motivation of students in learning foreign languages can be increased by listening without feeling bored because it is supported by interesting media such as telegrams.

In the English study program at Unirow Tuban, there are three courses related to listening skills, they are Basic Listening, Intermediate Listening and Advanced Listening. The researcher takes one of them, it is Intermediate Listening in the second semester. Based on the pra-observation, there are still many students who are late to gather their tasks. One of the factors that causes the above problems is the low interest, motivation and interaction of lecturers with students. The use of interactive learning media plays a role in increasing interest, and motivation (Riyambodo et al., 2012).

When the researcher asked some students about the learning media used by the lecturers to convey the learning process, most of their answers were for audio using websites and videos using links from youtube. Telegram has Bots to access information with the teacher (A'isah & Wardhono, 2017) In addition, some of them also said that the media used was boring and wasteful of quota because the videos served from YouTube, therefore students were a bit constrained to collect on time. Furthermore, if the learning media used is different at one time, the student must open the first application and move to another application to be able to work. and the application makes teachers and students lack communication because the application used does not have an interactive learning element. Therefore, researchers will develop interactive learning media based on Telegram bots (A'isah & Wardhono, 2017).

There were three previous researched that have been done, the first is "Assessing English Speaking And Listening Skills With Telegram Mobile Application" by (Wardhono

& Spanos, 2018a), they found the use of Telegram in education makes it even more important to the overall success of students' ability to communicate internationally. The second is "Efektivitas Media Pembelajaran Interaktif Menggunakan Bot Telegram Pada Kelas X Multimedia Pada Pelajaran Komputer Dan Jaringan" by (Putra & Dermawan, 2020a), they found that the use of telegram bots as learning media provided effectiveness on student learning outcomes. The third study is a graduating paper written by (Siregar, 2021a) with the title "Pengaruh Pembelajaran Problem Based Instruction Menggunakan Quiz Bot Telegram Terhadap Motivasi Belajar Matematika Kelas V Sd Negeri 200105 Padangsidempuan", he found that there was a significant positive correlation on students' learning motivation on the use of the telegram quiz bot during learning.

The difference between the first previous research and this research is that the previous research was conceptualized to measure students' listening and speaking skills, while this research develops interactive media used in listening learning. Then the difference between the second previous study and this research is in the method used in previous studies using quantitative research, while this study uses Research and Development (R&D) that adapts the ADDIE model. While the difference between this research and the third previous research is the method used, the previous study used the PBI method, while this study used the R&D method which adapted the ADDIE model.

The reason the researcher chooses second semester students as research subjects, because these second semester students are an ideal course because they are at the intermediate listening level. Thus, the researcher expects them to develop at the next level of listening. However, this research has similarities with previous research, namely using Telegram bots. This research will be important because the researcher believes that Telegram bots will greatly affect the improvement of students' listening skills in the future. Based on the explanation and problems above, the researcher is interested in conducting research with the title "Development of Interactive Learning Media Based on Telegram Bot in Intermediate Listening Course of Unirow Tuban".

METHOD

The research conducted by the researcher is a type of Research and Development or commonly called R&D. This research has an important role in learning if it is carried out properly and systematically. The research method used in-depth analysis of literature studies related to learning innovation (Wulandari et al: 2022). According to (Gall et al., 2006) research and development is an industry-based development model in which research findings are evaluated, designing new products and procedures, which are then

systematically field tested, evaluated, and refined until they meet criteria for effectiveness, quality, or standards. which is determined. New products or procedures for research and development of R&D in the field of education can be in the form of models, media, tools, books, modules, evaluation tools, and learning tools.

The systematic instructional design model of this research adapts the ADDIE development model which consists of five stages which include analysis, design, development, implementation, and evaluation to design learning products (Branch, 2009).

According to (Wardhono, 2008)“Basic research is concerned with the relationship between two or more variables. It does not often provide immediately usable information for altering the environment. Its purpose is to develop a theory that indentifies all the relevant variables in a particular environment and hypothesizes about their relationship. Then, using the findings of basic research, it is possible to develop a product, such as: a curriculum, a teacher-training program, a textbook, or an audio visual aid”.Then the data collection carried out in this research is in the form of information about student learning media used in classroom learning. This research data was collected from learners and expert judgment.

In this research, the researcher used quantitative analysis techniques in data analysis. The quantitative data in this study were obtained from questionnaire responses from material experts, media experts and students analyzed using inferential statistics. According to (Rukminingsih et al., 2022), inferential statistics are used to draw conclusions based on the analysis that has been done. The questionnaire in this research is the Summated Scale Option. The summated scale consists of several statements stating likes or dislikes, so that respondents can react. Respondents can indicate their agreement or disagreement with each statement given. Each statement is given a score and added up so that it can measure the attitude of the respondent. In other words, the overall score represents the respondent's position on the continuum of liking or disliking an issue (Kothari, 2004). The summation scale used in this study follows the pattern created by Likert. In the Likert scale, respondents are asked to provide responses that agree or disagree on the statement made by the researcher. In this study, the questionnaire has five choices based on the Likert type scale as follows:

Table 1

Response	Value
Strongly Agree	5
Agree	4
Neutral	3

Disagree	2
Strongly Disagree	1

(Kothari, 2004)

The values given are from one to five for the response of strongly agree, agree, neutral, disagree and strongly disagree, which describes a very positive position to a very negative position. The level of measurement scale in this study uses intervals. The data interval can be analyzed by calculating the average answer based on the scoring of each answer from the respondent.

$$\text{Percentage of respondents' answers} = \frac{\text{Total Score}}{\text{Total Maximum Score/ideal}} \times 100\%$$

Then the average score is sought from the test sample subjects and converted to an assessment statement to determine the quality and level of usefulness of the resulting product based on user opinions. The conversion of scores into assessment requirements can be seen in Table below.

Table 2

Percentage score	Interpretation
81-100%	Very Worthy
61-80%	Worthy
41-60%	Quite Decent
21-40%	Less Viable
0-20%	Very Less Viable

Based on the table data above, the product development will end when the assessment score for this learning media has met the eligibility requirements with the level of quality conformity in interactive media based on telegram quiz bots in the intermediate listening course which is categorized as very worthy or worthy.

FINDING and DISCUSSION

FINDINGS

Based on data taken from questionnaires that have been distributed to material experts, media experts and students, it was found that the telegram quiz bot is “very worthy” to use in learning.

In this section, the researcher analyzed In this section, the researcher analyzed Validation of material experts, media experts, and students is done by determining the feasibility of the telegram quiz bot media as a learning medium. The data below from the questionnaire that has been distributed from material experts, media experts, and students.

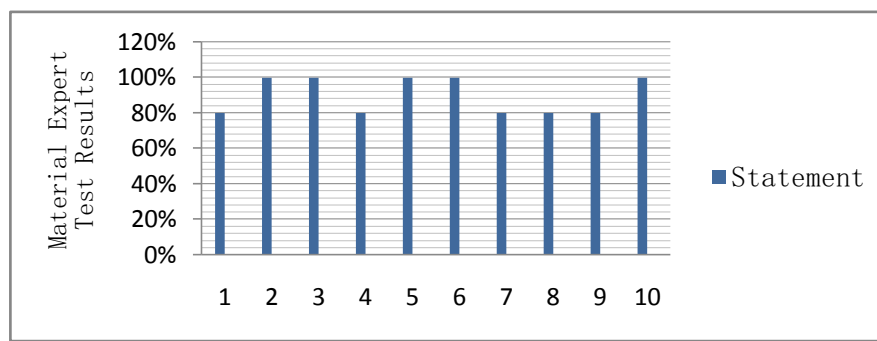


Figure 1

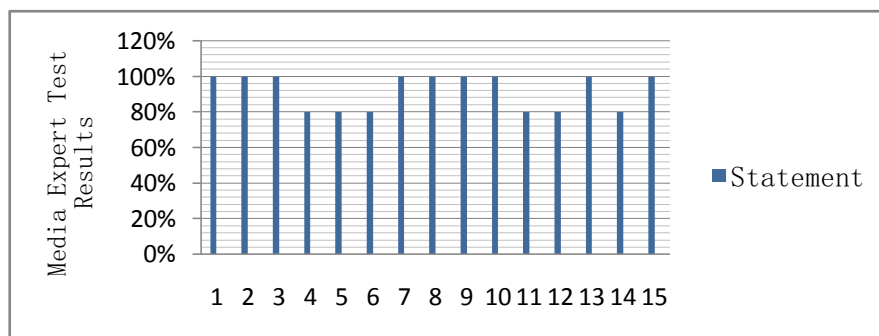


Figure 2

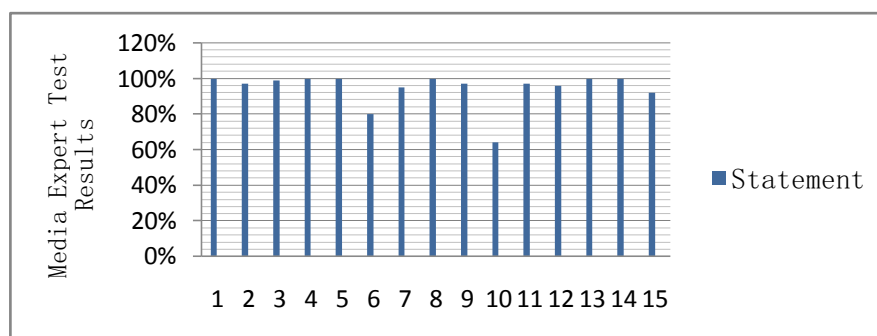


Figure 3

From material expert and media expert showing a total of 90% so that it is stated "very worthy". As well as an assessment from media experts with a total value of 92% so that it is declared "very worthy". The data from students found the results which stated "very worthy" with a percentage gain of 96%. So the telegram quiz bot is very feasible to use in the learning process and students do not feel bored using interactive learning media based on the Telegram Quiz Bot. This is similar to the research by (Lestari & Wardhono, 2020) which found that using the Telegram Bot API as a learning medium is easy to use and also flexible to carry anytime and anywhere by the participants.

DISCUSSION

Before using telegram for media learning, the media that was used by intermediate listening course class was audio using Website links and video from links on YouTube. There is a shortage of the media used, which is to move between one platform to another, does not have an interactive element and uses large internet data, thus making students feel bored and less interested. Thus, researchers develop interactive learning media based on Telegram Quiz Bot which is felt to be able to eliminate the boredom of students in learning Intermediate Listening Course. As done by (Siregar, 2021b) with research the use of the Problem Based Instruction learning model using the Quiz Bot Telegram to motivate student learning and get positive results, with a score of 81.33 in the "very good" category.

In this developed product, it is carried out in accordance with the procedure developed by (Branch, 2009b), the research model is the ADDIE model with five stages: analysis, design, development, implementation, and evaluation. In line with what was done by (Subiyantoro & Listyaningsih, 2020) with research using the ADDIE stage. The ADDIE stage has the advantage of being more structured and clear so the researcher choose to use the model in this study in this research and development.

The first stage of this development is to conduct an analysis by interviewing the second semester students. Consists of identification groups, general characteristics, number of students, location of students, experience level, performance, and needs.

From the identification group analysis, it is known that students are in the second semester English Language Education. From the general characteristics it is known that in the second semester there are 4 men and 11 of women, they are all at the intermediate listening course level. From the number of students, it can be known that in this second semester there are 15 students. From the location of students, it can be known that the second semester students study at Unirow. From the performance analysis so far, it can be known that the learning media used was monotonous, only using Youtube for Video and Web Link for Audio, thus making students less interested and motivated when learning took place. The latter is the needs analysis by determining the learning media needed by students to increase students' interest in learning and learning motivation. Thus, researchers designed effective treatment by developing learning media in the form of Telegram Quiz Bot in the listening level intermediate course. so as to provide variations in the learning process of students.

Then the second stage is to design interactive learning media products based on telegram quiz bots. At this stage there are two steps, namely making a product manufacturing flowchart and validation from expert judgment. the first step is making a flowchart starting with "create new quiz", then "add title", then "add audio and video", the next is "multiple choice question", then "done, then "set timer, the last one is "not shuffle. The second step is expert judgment, in this step the researcher consults with material expert and media expert by showing examples of media and material to the two experts and giving questionnaires about the material and media that have been given. so that it gets an assessment from material expert with a total of 90% so that it is stated "very worthy". As well as an assessment from media experts with a total value of 92% so that it is declared "very worthy". The data obtained in the form of quantitative data. Quantitative data in the form of an assessment questionnaire whose results are

known and qualitative data which includes general criticism and suggestions that will be considered for the improvement of interactive media based on telegram quiz bots.

The third stage is the development of the telegram quiz bot. At this stage, the design that has been made and assessed, feedback and suggestions from expert judgment are applied at this stage. Start from "create new quiz" the goal is to create a new quiz, then "add title" with the addition of the title, namely Intermediate Listening Test. Then add audio and video, with 3 audio and 3 video, audio 1 contains conversations about daily needs, audio 2 contains conversations about assignments, audio 3 contains stories about arrogant trees, video 1 contains conversations about hobbies and video 2 contains conversations about holidays. The suggestion from a media expert is to improve the quality of the audio and add a material description/topic description by adding volume to the audio and adding a topic description for each audio and video applied so that it is in line with the research that has been done by (Putra & Dermawan, 2020b) because the ability of using telegram bots to display multimedia such as images, photos, videos, sounds, and texts simultaneously, can be used to display more valid and concrete learning materials so that learning does not give the impression of being boring. The next is "multiple choice question" after adding audio and video multiple choice questions are added to each audio and video, and suggestions from media experts in the form of adding an explanation of the correct answer are applied by adding an explanation of the correct answer, with a total of 20 questions. Then "done" to end adding questions. Then "set timer" the researcher uses 3 minutes for each question. The last one is "not shuffle" so that the questions are sequential and not random.

Next, the fourth stage is implementing the media learning with product trial, by giving a listening test to students using Telegram Quiz Bot. This is similar to the research conducted by (Wardhono & Spanos, 2018b) which uses tests. After the test,

the questionnaire was given to students to find out the response of students to interactive learning media based on the Telegram Quiz Bot. Based on the overall results which stated "very worthy" with a percentage gain of 96%. students' responses from the questionnaire stated that the interactive learning media based on the telegram quiz bot is very feasible to use in the learning process so that students do not feel bored using interactive learning media based on the Telegram Quiz Bot. This is similar to the research by (Lestari, 2020) which found that using the Telegram Bot API as a learning medium is easy to use and also flexible to carry anytime and anywhere by the participants. After that, interviews were conducted with students and it was found that the display of video and audio in the learning media is very clear according to the quality of each smartphone. The material is presented clearly, attractively, and easy to understand because the presentation of the material is equipped with a video and audio. The interactive media based on the quiz bot telegram presents the material in communicative and easy-to-understand language and the media also uses terms that are easily understood by students. Students feel more interested in participating in learning by using interactive learning media based on telegram quiz bot and feel that learning by using interactive learning media based on telegram quizbot can develop listening skills.

The last stage is an evaluation, at this stage, a final revision is made to the interactive learning media based on the telegram quiz bot, but students do not add suggestions to the interactive learning media based on the telegram quiz bot. Then the researcher can find out that the interactive learning media based on the telegram quiz bot is very worthy to use in the learning process from student responses to product validation. That the media developed is very suitable for use in the learning process.

Thus it can be concluded that the interactive learning media based on Telegram Quiz Bot can load audio and video in one platform, use lighter data, and have

interactive elements. In terms of material, audio, video, and questions are presented more clearly, accurately, and detail.

CONCLUSIONS AND SUGGESTION

CONCLUSION

Based on the research results from data analysis, it can be concluded that the development of interactive learning media based on Telegram Quiz Bot can load both audio and video in one platform, use lighter data, and have interactive elements. In terms of material, audio, video and questions are presented more clearly, accurately and in detail. Furthermore the eligibility after being validated by a validator from expert judgment is as follows; 90% material expert, 93% media expert, which means that this interactive learning media based on Telegram Quiz Bot is "very worthy" to be used in the learning process. The response of students to this interactive learning media based on Telegram Quiz Bot also obtained a percentage of 96% which was declared "very worthy". So, this shows that the interactive learning media based on Telegram Quiz Bot was feasible to use in learning process of Intermediate Listening Class.

SUGGESTION

Based on the results of this study, suggestions that can be given, as follows:

a. For teacher

Educators can apply learning media that have been developed to overcome difficulties in the learning process so that students can learn independently.

b. For learner

Learners can take advantage of learning media that have been developed so that they can learn independently whenever and wherever they are.

c. For other researchers

1. Other researchers who would use the telegram quiz bot as an interactive learning media based on telegram quiz bot by using a more interesting symbol so that students are even more interested.

2. There are many types of bots in Telegram, other researchers who would use other bots as interactive learning media should be able to choose a suitable bot telegram according to their needs and feasibility.

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