Developing Mobile Website-Based Learning Media for Students to Learn Speaking in English

Harits Masduqi
harits.masduqi.fs@um.ac.id
Universitas Negeri Malang, Indonesia

Chyntia W. Pratama
pratamachyntia98@gmail.com
Universitas Negeri Malang, Indonesia

Elvira Rosyida MR
elvira.mr.fs@um.ac.id
Universitas Negeri Malang, Indonesia

Abstract. This study is intended to create simple mobile website-based learning media to facilitate students learn speaking skills in English. The study used Borg and Gall's development model with six steps of modified procedures, including *research and information collection, planning, developing, design validation, design revision*, and *implementation*. The researchers carried out a product feasibility test through product validation and product trials in the field of research. The product validation was realized by submitting a questionnaire to the media expert and learning material expert, while the product trials were conducted by distributing the user feedback questionnaire to the teachers and students. The results showed that the feasibility testing score by the media expert was 88% and the product validation score by the material expert was 87%, meaning that the mobile website-based learning media was feasible to use. Furthermore, based on the user feedback questionnaire results, the cumulative percentage was 87,50%, supporting the product's validity. Thus, it can be said that the mobile website-based learning media is feasible and valid to use for learning speaking in English.

Keywords: Learning Media, Mobile Website, Speaking Skills

1. INTRODUCTION

Communication means information exchange between individuals or groups. It occurs when two or more people interact with each other (Saputra, 2013). The essence of communication is to achieve an agreement between two or more parties. They communicate to maintain a connection with their surroundings. As a social being, communication becomes fundamental to keep the community alive (Salieva & Saidov, 2021). Wade (2018) classifies the purpose of communication into two perspectives: first, the perspectives from the information sender's point of view, which provide information, entertainment, and persuasion, and secondly, the perspectives from the information recipient's point of view that receive information,

appreciate, and accept or reject the idea.

Information can be transferred through two methods: gesture and verbal. Verbal communication is closely related to speaking activity. During the information delivery process, the speaker must pay attention to the various aspects of communication. Etiquette plays a part in maintaining good communication (Duskaeva, 2020). The manner of speaking can be reflected in both verbal and non-verbal aspects (Khairullina, 2020). The verbal aspect of etiquette can be seen from diction choice, effectiveness of sentences, and correct intonation for each spoken word. Non-verbal aspect refers to speaker performance, such as body language, expression, eye contact, and convenience during the communication (Kochkareva, 2021).

Speaking is the process of sending a message or an idea using spoken language as its medium. Speaking skills are related to personal abilities that use language as a medium for daily communications (Birsh & Carreker, 2018). Among the four basic language skills, speaking is regarded as the most important and fundamental skill for transferring information (Herrera & González, 2017). In this case, people communicate with each other in oral forms before being able to transfer information using texts or written forms (Mulyati, 2015). Furthermore, in English language education, speaking skills cover fluency, vocabulary, grammar, and pronunciation (Allo & Priawan, 2019). Everyone has the potential to communicate in English, but only a few of them can speak with good diction, structure, and pronunciation (Markov, 2018).

Around two years ago, the COVID-19 pandemic spread worldwide and greatly influenced people's ways of communication. To prevent further COVID-19 infections, lockdowns were implemented in many countries, so people interacted less with each other. Human communication is mainly done via texting, affecting people's speaking skills (Mahfuza et al., 2020). It happens in the same fashion for students in Indonesian senior high schools, who now tend to communicate more via texting and rarely speak in English to each other. Therefore, developing learning media to help students learn and practice their speaking skills is needed.

Several previous studies have focused on developing learning media to assist students in learning or improving their speaking skills. One of the studies is developing learning media to improve speaking skills based on the *hot sit game strategies* (Afifah, 2020). The media development positively affected students' speaking skills when practiced regularly for a semester. Another research study is improving students' speaking skills by grouping the students with different skills and using various learning media in groups (Maulana et al., 2019). The results showed that students with excellent speaking skills and understanding of different learning media were able to influence the other students to improve their speaking skills. Based on the previous studies, it can be said that the development of speaking skills in English has become a significant concern. However, it is still limited to improving students' speaking skills through classroom direct learning.

As Indonesian education is now focused on the current trends of digitalization and most of the educational institutions still lack online media resources, the development of web-based learning media needs to be carried out intensively, so that disruptions in learning activities can be solved (Kusuma & Syam, 2022). Based on the preliminary observations conducted by the researchers at MAN 1 Lamongan, it was found that the school was not ready to enter the digital education era. The researcher also conducted preliminary interviews with an English

teacher and several students at the school to confirm this assumption. The interview results showed that MAN 1 Lamongan did not have digital learning media, especially for learning speaking skills. Therefore, the researchers conducted the present study to develop a mobile website-based learning media to help students learn to speak English.

2. METHOD

This study used a Research and Development (R&D) design, which aimed to produce a product/learning media. The product developed in this research was a simple mobile website-based learning media that contains audiovisual features to support the students' learning of speaking skills in English. The study was conducted at MAN 1 Lamongan, a state Islamic high school in East Java, and involved two English teachers and fifty students as the research participants.

This study used Borg and Gall's development model (see Kusuma et al., 2020; Lestari et al., 2019; Rifai et al., 2020), with six stages of modified procedures, including: (1) *research and information collection*, (2) *planning*, (3) *development*, (4) *design validation*, (5) *design revision*, and (6) *implementation.* Each step of the procedure is shown in the flow chart below.

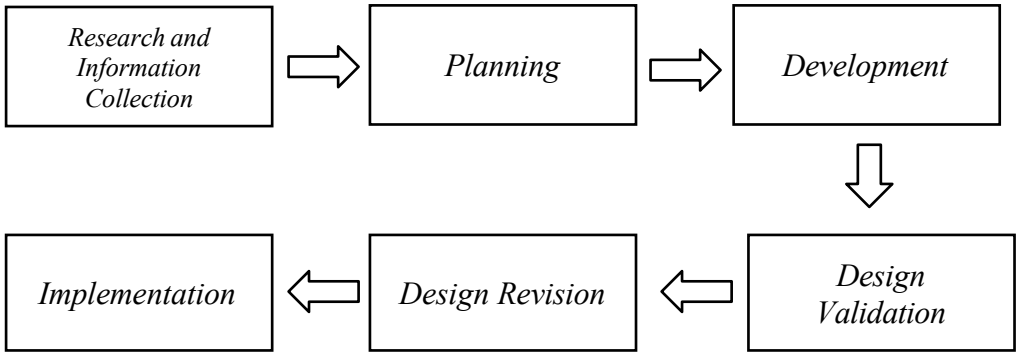

Figure 1. Borg and Gall's Research Development Model

2.1. Research and Development Procedures Research and Information Collection

An early stage of the research started with data and information collection about learning activities in the school. The learning activities data collection included learning methods, learning goals, and student characteristics. Information and data were collected by observation and interview methods, which involved the teachers and students as users of the final product produced in this research.

2.2. Planning

The product was planned and designed to get a complete representation at this stage. Several stages of the research and development plan were (1) determination of learning materials, (2) determination of media types, (3) determination of media platforms, and (4) preparation of assessment criteria, which were extended to questionnaire instruments for material experts, media experts, and product users.

2.3. Development

At the development step, the product was built or in the design realization process. The product was developed into audio-visual learning media based on a website platform. The development process at this stage is described as (1) learning materials development, (2) script and voice-over development, (3) video animation development, (4) compiled website development, and (5) validation instrument development. Instrument product validation was developed into a questionnaire form. The instrument questionnaire included several statements with multiple agreement choices (Sugiyono, 2014). Agreement choice was available in five options, referenced from the Likert scale. There are three questionnaire templates: the first for a media expert, the second for a material expert, and the third for students as product users. The questionnaire form is shown in Tables 3.1, 3.2, and 3.3.

Table 3.1 Media Expert Assessment Questionnaire Instrument

Number	Validation Aspect	Position
1	Layout	
2	Features	
3	Overall Display	

Table 3.2 Material Expert Assessment Questionnaire Instrument

Number	Validation Aspect	Position
1	Materials Relevancy	
2	Sources Credibility	
3	Innovation	
4	Literature Propriety	

Table 3.3 User Feedback Questionnaire Instrument

Number	Validation Aspect	Position
1	User-friendly Design	
2	Users Experience	
3	Attractivity	

2.4. Design Validation

After the development was completed, the product was checked for validation. Design validation was carried out by a media expert to measure product pre-design eligibility. Here, the media expert or the validator was an English lecturer qualified and experienced in assessing digital learning media. The validation process was carried out through a questionnaire.

2.5. Design Revision

Design revision is a process of improving the product based on product validations. This design revision aimed to maintain product relevance and suitability for student needs. Data used on design revisions were obtained from the assessment questionnaire results and from critics and recommendations by the media expert.

2.6. Implementation

Implementation was the final stage of this study. The finished product was subsequently implemented in learning activities on field research. It also became the

final validation process for the teachers and students as the product users. Implementation has another function, which is a direct field test. A field test was conducted to get product validity and eligibility data. The product validity was obtained by assessing several aspects of the product formulated in a questionnaire form by a material expert. In addition, the product eligibility referred to the student's necessary fulfillment and was measured by the student's response, which was obtained through the user feedback questionnaire.

Data were analysed using two different methods. First, criticism and suggestions were analysed using the descriptive technique. Second, validation data was analysed using statistical descriptions to get percentage numbers. This analysis was used to measure the validation scale. The product validation scale refers to product validation criteria that Arikunto (2009) categorized and showed in Table 3.4.

Table 3.4 Product Validation Category

Number	Category	Percentage
1	Valid	81%-100%
2	Better Valid	61%-80%
3	Medium Valid	41%-80%
4	Less Valid	21%-40%
5	Invalid	<21%

3. RESULTS

The development of mobile website-based learning media in this study was carried out with six procedural steps based on Borg and Gall's development model. The research procedures and the results are described as follows:

3.1. Data and Information Collection

Data and information were collected by field observation. It was found that the learning activities were applied by conventional methods. Learning activities in the school have used the lecture method to transfer knowledge. During the pandemic of Covid-19, the learning methods were unsuitable. Based on the problems, the developer took the initiative to develop a learning medium that can be used by students and teachers in English learning. Referring to the requirements of students during the pandemic, online-based learning media is the best solution to address these problems.

3.2. Planning

The planning stage includes the activities of determining learning media design. At this stage, the presented materials were already planned. The results of the product planning activities are described as follows:

1) The learning material to be presented is a telephone conversation, with basic competencies 3.6 and 4.6 based on the 2013 curriculum.
2) Learning media was developed using a website platform to apply the mobile learning model.
3) The learning material will be presented in an explanatory text and a learning video.
4) Product validation is carried out through an evaluation by Mr. Eka as media

expert and Mr. Samudra as material expert to determine the product's feasibility levels.
5) Field trials were conducted to get data about student responses as website users.

3.3. Development

The development step is the step of complete product creation activities. At this step, the instruments of product validation were prepared. This step realized the product that had been previously planned. The results of the development stage are systematically described as follows.

1) The Learning materials development team produced an explanation text for visual learning materials and conversation scripts for the learning video.
2) A learning video was developed based on the conversation script. The videos were compiled about telephone tutorials by directly involving the participants in practice.
3) The website was created to present the learning materials. The learning media in this research and development can be accessed at *http://funenglish.ga/?i=1*.
4) Presenting learning materials on the website. The explanation text was presented on the website's learning materials feature, while the learning video was on the website's practice video feature. The website also provided special features to present student project conversations on the task feature.
5) Arrangements of product validation instruments. Those instruments were used for expert and user responses. The questionnaire was prepared for the media and material experts. It contains several indicators of assessment of learning media in terms of content feasibility and overall appearance.

3.4. Design Validation

Design validation in this research and development included submitting an assessment questionnaire to the media experts. The assessment by a media expert was based on the learning media's overall appearance and functional aspects. The results are presented in Table 3.5.

Table 3.5 Product Validations by Media Expert

Number	Assessment Aspects	Score Validity	Maximal Score	Feasibility Percentage (%)	Description
1	Layout	26	30	86,67%	Valid
2	Feature	14	15	95%	Valid
3	Overall Display	26	30	86,67%	Valid
Total		66	75	88%	Valid

Based on the evaluation results, it is known that the learning media has reached feasibility with a cumulative percentage of 88%. The aspect that gets the highest score is the feature aspect. The website has been equipped with several features to support the operation of learning media. The completeness of the features on the website is one of the advantages of this learning medium. The cumulative percentage shown has a value greater than 81%. These results prove the website's overall appearance is included in the valid criteria. However, revision is still needed

according to the existing comments.

3.5. Design Revision

Design revision includes design improvement activities based on the comments of the media experts. The design revision aimed to improve learning media, especially regarding appearance and functional aspects. The product was then developed based on students' needs and the achievement of research objectives. The material used for consideration refers to the summary of design revisions presented in Table 3.6.

Table 3.6 Comments by Media Expert

Number	Description
1	Optimizing the visual design, especially the selection of font style.
2	Add the description about users of learning media on the website.

Based on the media experts' comments, the written information on the website needed to be corrected. In general, the writing of learning media was quite good, but the consistency in choosing font styles needed to be improved. In addition, the media experts also provided suggestions for improvement regarding the information on learning media users. According to the media expert, information about learning media users must be displayed on the cover page.

After the revisions, the final design of the website is presented in the images below:

Figure 2. The final design of the website

3.6. Implementation

Implementation was carried out through field trials to determine the level of product feasibility and user feedback. Field trials were conducted by testing the product on users. Testing was also carried out to obtain product validation from the material experts. In research and development, students act as product users, and English teachers act as the material experts. The results in this step are described as follows:

3.7. Product Validation

The material experts completed an assessment questionnaire to validate the

product. The data obtained from the validation results were numerical. The data were analyzed by calculating the percentage of data used for the validity categorization. The results of product validation by the material experts are presented in Table 3.7.

Table 3.7 Product Validation by Material Expert

Number	Assessment Aspects	Score Validity	Maximal Score	Feasibility Percentage (%)	Description
1	Materials Relevancy	23	25	92%	Valid
2	Sources Credibility	12	15	80%	Valid
3	Innovation	18	20	90%	Valid
4	Literature Property	12	15	80%	Valid
	Total	65	75	86,67%	Valid

Based on Table 3.7, the cumulative validity percentage reached 86.67%. Thus, the cumulative validity results are declared valid. The aspect that obtained the highest score was the relevance of the material. Learning materials were presented according to the fundamental competencies relevant to scientific novelty in the 2013 Curriculum. In addition, learning materials were also presented innovatively in the form of learning videos to make it easier for students to practice speaking skills in English.

3.8. Product Trials

Product trials were realized through learning media in English learning activities. This process aimed to obtain user feedback, which was obtained through a questionnaire given to students. The results of product trials are shown in Table 3.8.

Table 3.8 Results of User Feedback Questionnaire

Number	Assessment Aspects	Score Average	Maximal Score Average	Score Percentage (%)	Description
1	User-friendly Design	22	25	88%	Valid
2	Users Experience	30	35	85,71%	Valid
3	Attractivity	18	20	90%	Valid
	Total	70	80	87,50%	Valid

Based on Table 3.8, the results of the user feedback questionnaire show that the cumulative percentage reached a value of 87.50%. The highest assessment results were in the aspect of interest. Overall, website-based learning media were considered creative, innovative, and attractive to students. Learning media presented material uniquely, equipped with pictures and learning videos that can stimulate students' attention. As the cumulative percentage result was greater than 81%, it can be assumed that the website-based learning media is feasible and gets positive responses from students as learning media users.

4. CONCLUSION

Based on the Borg and Gall development model, the researchers have successfully created a simple mobile website-based learning media to help the students learn speaking skills. The results showed that the feasibility test score by the media expert was 88%, and the product validation score by the material expert was 87%. Furthermore, based on the user feedback questionnaire results, the cumulative percentage was 87.50%. Thus, it can be said that the mobile website-based learning media in this study is feasible and valid for students to learn speaking skills in English.

For future researchers and English teachers interested in producing web-based learning media, it is recommended that they work with professional website illustrators and graphic designers so that their websites will look more attractive and user-friendly to English students or other future users. The cooperation will be better if all parties involved have adequate English competence to make the website a learning medium more accessible and comprehensible for the students. The website can also be developed by adding various materials to make the learning experience more joyful and engaging for the users in the future.

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