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Development of E-Module Based on Flip Book Media to Improve Students' Speaking Skills

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Abstract: This research aims to develop E-module teaching materials based on Flip Book media to improve students' speaking skills. This research method used research and development with the Plomp model consisting of three stages: preliminary analysis phase, development or manufacture of prototypes, and assessment. The research instrument used a questionnaire, while the data analysis technique was quantitative. Based on the results of the media product feasibility test validation, the value was 85.62%, while the media feasibility test percentage was 89.58%. Next, the practicality test with a percentage of 0.86%, the results of the feasibility test and practicality test showed that the flip book-based e-module product developed was in the very valid category and suitable for use without revision. Meanwhile, the results of the N-gain score test for increasing students' speaking skills each semester towards increasing speaking skills are in the medium category, so it can be concluded that using e-modules based on Flip Book media can improve students' speaking skills.

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Introduction

Technological developments that continue to develop from time to time have had a significant influence on human life, starting from the industrial technology era, the agricultural technology era, the information technology era, and also the communication and information technology era (Liao & Kachalia, 2015; Danuri, 2019). One of the roles of technology is in the learning process, which educators have widely used with various reform efforts (McClelland et al., 2014; Saregar, 2016). Various efforts must continue to be made to improve the learning process to be even better (Solihudin, 2018). One effort that can be made to improve the quality of learning is by developing learning media in the form of teaching materials (Syahrial et al., 2019).

The teaching materials can be in the form of a collection of materials systematically arranged as independent learning media per the applicable curriculum" (Magdalena et al, 2020). Some familiar teaching materials can be books or modules. Although most of the learning modules are printed, the existence of print modules is seen as too monotonous and less interactive (Ricu & Najuah, 2020). According to Susilo et al., (2016), in the module, the language, patterns, and characteristics of teaching materials have been arranged as if the teacher's language is used for teaching and learning. Modules are teaching materials that are strong enough to be used as teaching materials and one way of organizing learning materials (Soeprajitno et al., 2019). Technological developments continue growing rapidly because many students prefer to read and access teaching materials via smartphones (Simamora et al., 2018). Therefore, it is necessary to have teaching materials in the form of e-modules in this digital era.

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Creating modules in a more efficient and interesting form can be one way to increase student literacy in reading modules because electronic modules are often equipped with various interactive products such as animation, video, images, and audio. The development of science and technology in the 21st century supports an interactive learning process, which facilitates educators and students learning offline and online with e-learning-based. In addition to e-learning, digital modules are teaching media that have arisen from the development of science and technology (Sidiq & Najuah, 2020). Furthermore, Widyaningrum & Patrikha (2021) stated that along with the development of time, technology, and learning media, more and more innovations are emerging in teaching and learning activities (KBM).

Flipbook is an animation made from a stack of paper resembling a thick book, but the pages depict a moving animation process (Irawati Simatupang & Sormin, 2020; Maynastiti et al., 2020). The e-module learning media was created using the Kvisoft Flipbook Maker Pro 3.6.1 software. This software is open source, and the software can make the book display into an electronic book in the form of a flipbook (Fonda & Sumargiyani, 2018). Thus, flipbooks are more efficient and interesting, using technology that supports current learning (Kurniawan et al., 2018; Simanjuntak et al., 2019). For this reason, this application makes it easier for students to study speaking material in lectures and hone their English speaking skills.

In practice, students' abilities in learning English are required to master three aspects of the language: pronunciation, grammar, and vocabulary. These three aspects are realized in four language skills: listening, speaking, reading, and writing. Speaking skills are one of the most important skills to develop for effective communication (Mary, 2019). Students communicate using a foreign language (English) to gain valuable soft skills, which are a consideration for job recipients. Also, skills are needed to perform well in job interviews and in their jobs (Harianto et al., 2020). Furthermore, English language learning is focused on four main skills: listening, speaking, reading, and writing (Herry Setyawan et al., 2019).

These skills must be addressed in a way that helps students meet the standards set for them and develop their communicative competence gradually, especially speaking. According to Setyawan et al., (2018), students' difficulties in applying English communication orally are part of a worrying problem, especially in speaking. Speaking is closely related to listening skills. However, applying English communication orally is the most difficult skill to achieve. It could be because speaking learning is only taught, namely that students are given written material and asked to write with special instructions from the teacher/lecturer and then required to respond. In this case, educators have not actively organized the learning environment, especially in utilizing varied learning media sources to increase students' learning motivation. So, there should be a need for learning strategies and the provision of teaching material resources adapted to students' characteristics in the digital era. (Rifai et al., 2020). In order to improve students' speaking skills, e-modules have a vital role in helping students learn. Therefore, E-Modules Based on Flip Book Media to Improve English Education Students' Speaking Skills needs to be developed.

Research Method

This study used a development model adapted by Plomp, referred to as the Plomp research model. This Plomp model consists of several stages, namely (1) the preliminary analysis stage (Preliminary Research); (2) The development or prototyping phase (Development or Prototyping Phase); (3) The Assessment Phase (Plomp & Nieveen, 2013). The Plomp mode stages can be seen in the image below.

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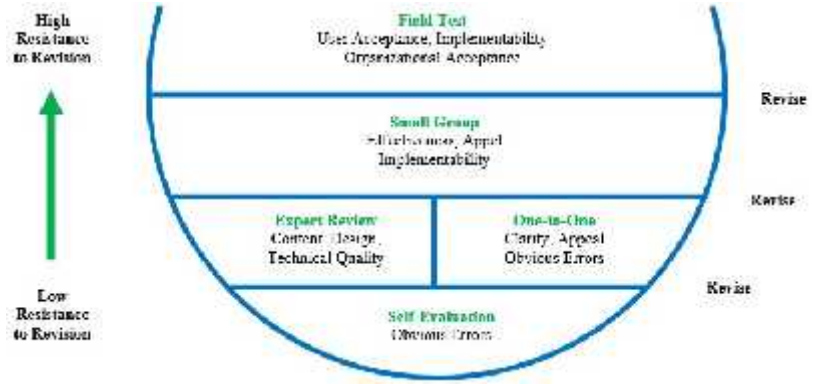

Figure 1. Plomp Model Research Stages

Regarding Figure 1 above regarding the research stages of the Plomp Model, it can be explained that the formative evaluation activities carried out are as follows: (1) prototype 1 which has been designed; (2) Expert Review: At this stage, experts are asked to evaluate or provide assessments and suggestions on the product design; (3) Individual Evaluation (One-to-one Evaluation), this stage was carried out on three students who have different (heterogeneous) abilities. Students were asked to provide comments regarding the practicality of the textbooks for the Speaking course developed; (4) Small Group Evaluation, this stage was carried out on six students who have heterogeneous abilities; (5) Field test (Field Test), research instruments used by researchers namely in the form of questionnaires and interview sheets. This data analysis technique was carried out by grouping information from qualitative and quantitative data in input, responses, criticism, and suggestions for improvement contained in questionnaires and interview results. The results of this data analysis were then used to revise the learning flip book-based e-module product.

Results and Discussion

Implementing this research activity is part of the E-Module-Based product development research Bookin learning English Speaking material for English Language Education Study Program FKIP Universitas Samudra students. The results of the research can be expected to be able to find an answer from practical knowledge and, in outline, to be able to present the results of the research, which consists of several stages in the research as follows:

Introduction (Flip Book Based E-Module Needs Analysis)

The results of observations at the need analysis stage for flip book-based e-modules can be seen from interviews with speaking lecture material during the English learning process. It can be said that the conventional learning system still uses textbooks or audio learning tools; this still shows that the module content is monotonous and does not use a display that supports audio-visual, in the form of images, audio, video, animation, and other visual views. It is a problem faced by the English Language Education Study Program to have teaching material content that helps implement learning based on digital technology media.

The aim of developing learning using digital technology media is to use flip book-based e-modules to train speaking skills. However, student participation is quite active, especially in the discussion and question-and-answer process. This effort is made so that lectures can take place in a more participatory and democratic manner with feedback from students to lecturers. So, in this case, in this series of learning speaking processes, there are several strategies and models of learning combinations that are carried out, including a

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typology of speaking activities through the look, listen and repeat, listen and participate, memory game, dramatization, dialogue and roleplay methods, and several stages of learning speaking integrated and created learning applications and e-modules.

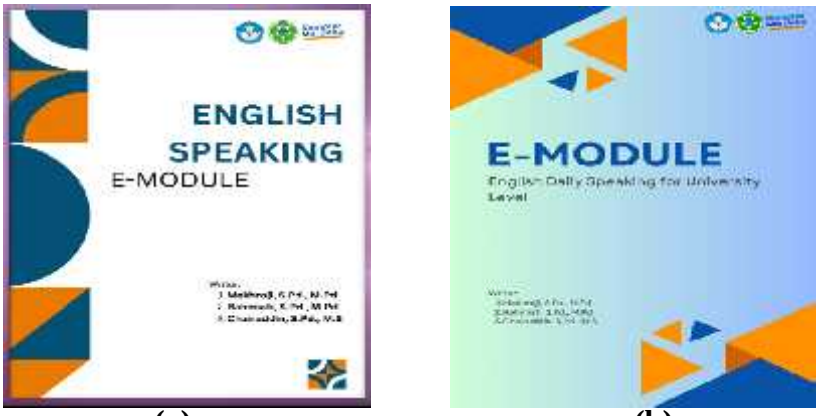
So, in the future, teachers can develop innovative modules to achieve the desired learning indicators, such as improving learning outcomes and strengthening children's character. In addition, another problem is seen when student learning motivation tends to be low when only printed modules are given. It shows that digital or ICT-based innovative modules with attractive appearance and packaging are needed. One effort that can be made to make this happen is to make e-modules using the Flip Book Maker application. The use of e-modules is expected to improve speaking skills and arouse and motivate students to learn because students in the era of science and technology and all-digital tend to like the concept of learning using electronic media.

Development of Flip Book-based E-Modules

The process of developing e-module learning tools has been carried out using the Plomp Model development model; from the steps in the model process flow from needs analysis to the teaching materials needed to use learning materials on speaking. In this case, the e-module will be designed by preparing a prototype of teaching materials, developing an initial draft of the module through a validation process by experts, implementing and evaluating the product being developed, and continuous improvement. The module development design framework can be seen in the description of the e-module as follows.

a) E-Module Cover

Based on the cover of this e-module, it contains the material's title, the Ministry of Education and Culture logo, the independent campus, the university logo, the cover color, and the researcher's identity.



(a) **(b)**

Figure 1. Cover Design (a) Draft Teaching Materials for the E-Module Speaking, (b) Teaching Materials for the E-Module Speaking After Revision

Based on the picture, the cover explained that the cover taught speaking materials before and after revision. The changes in the two covers followed the validator, such as in color use, spelling, and writing. The cover of the teaching material becomes more attractive and appropriate to the target object, namely students of the English Language Education Study Program. The draft of the speaking teaching material that has been designed is then validated by experts, namely teaching material design experts and material experts.

b) E-Module Material

The material discussed in this e-module includes the Preface, material for speaking from the consumer's perspective, and material for going public. The following is an example of an image of one of the e-module materials as follows.

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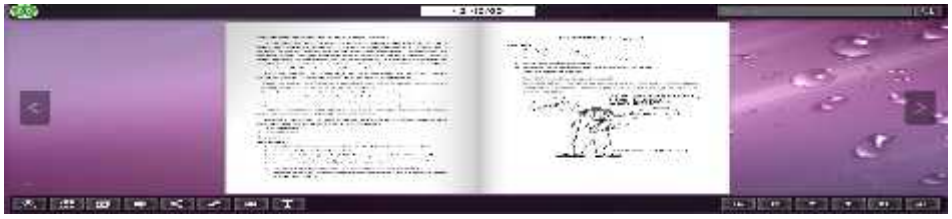
(a)



(b)

Figure 3. (a) Speaking material from a consumer perspective, (b) Going Public material Due Diligence

Product feasibility is assessed from the results of expert tests and trials in two test groups. The following is a detailed explanation.

a) Media Expert Test

Validation by material experts aims to obtain data in the form of assessments, criticisms, and suggestions for improvement for the digital teaching materials being developed. The material expert assessment aspects consist of content appropriateness, presentation of material, and linguistic aspects. The results of the material expert assessment can be seen in Table 1.

Table 1. Results of Material Expert Assessment of the Quality of Flip Book-Based E-Modules

No	Aspect	Indicator	score				Flat-Flat
			V1	V2	V3	V4	
1.	**Content Eligibility**	Material conformity with CPL and CPMK	4	4	4	3	3.75
		Material accuracy	4	4	3	3	3.50
		Meaningfulness of learning material	3	4	4	3	3.50
		Up-to-date learning materials	4	4	4	3	3.75
Validation Score %							**90.62**
2.	**Presentation**	Material presentation techniques	4	4	3	3	3.50
		Presentation Support	3	3	4	4	3.50
		Student engagement	3	3	3	4	3.25
		Feasibility of feedback	4	4	3	3	3.50
		Feasibility of formative questions	3	3	3	4	3.25
Validation Score %							**85.00**
3.	**Language**	Task	4	3	3	3	3.25
		Communicative	3	3	3	3	3.00
		Dialogic and interactive	4	4	4	3	3.75
		Suitability to the level of development of students	3	3	3	3	3.00
		Consistency and	4	3	3	3	3.25

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		cohesiveness of thought					
Validation Score %							**81.25**
Overall validity score							**85.62**
Category							**Very Valid**

Based on the table above explains the results of the material expert's assessment regarding the contents of the flip book-based e-module; the results obtained are a percentage of 85.62%. The results of this percentage are that the flip book-based e-module can be declared suitable for use without revision for learning activities on speaking lecture material. The results of the assessment did not reach 100%. It means that according to the experts' assessment, there is still a lack of rewards for correct answers and wrong answers for each practice question; there is material that is still lacking, as well as adding practice questions in each sub-chapter and command. Do the questions; several videos and pictures must be added with explanations and sources. Researchers make suggestions and comments given by material experts.

b) Media expert

Next, an assessment was carried out by media experts to determine the suitability of the media in using flip book-based e-modules. Media expert assessment indicators consist of appearance, illustrations, color composition, selection and type of font size, navigation icons, interactivity, appropriateness of images and animations, as well as ease of use of media and readability of text. The results of the media expert assessment can be seen in Table 2.

Table 2. Validation of Flip Book Based E-module Media Experts

No	Aspect	Indicator	score				Flat-Flat
			V1	V2	V3	V4	
1.	graphics	Changeable	4	4	4	3	3.75
		Illustration	4	3	4	3	3.50
		Color composition	4	4	3	4	3.75
		Selection of font type and size	4	4	3	4	3.75
		Layout (navigation icons)	4	4	3	3	3.50
		Interactivity	3	4	4	4	3.75
		Image eligibility	4	4	4	3	3.75
		Ease of use of media	3	3	4	3	3.25
		Text Readability	4	4	4	3	3.25
Validation Score %							**89.58**
Category							**Very Valid**

The results obtained in the table above are in the media expert's assessment of the flip book-based e-module with a percentage showing 89.58%. This percentage shows that the flip book-based e-module product developed is in the very valid category and is suitable for use without revision.

Practicality Test

Practicality testing was carried out on students consisting of product trials carried out in small groups, as follows:

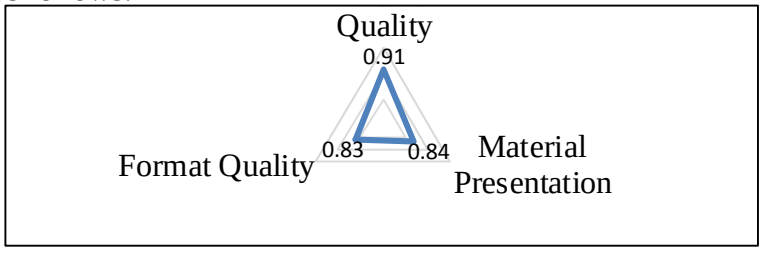

Figure 4. Results of Small Group Test Assessment of the Quality of Flip Book-Based E-Modules

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The results of the assessment of the small group test students on the quality of the flip book-based e-module showed a percentage of display quality of 0.91%, the percentage of presentation of material was 0.84% while the percentage of format quality was 0.83%.

Testing Stage to Improve Student Speaking Skills

At this stage, an assessment of a test would be carried out on students in English speaking ability from each batch of semester III, semester V, and semester VII; this can be proven in the following figure.

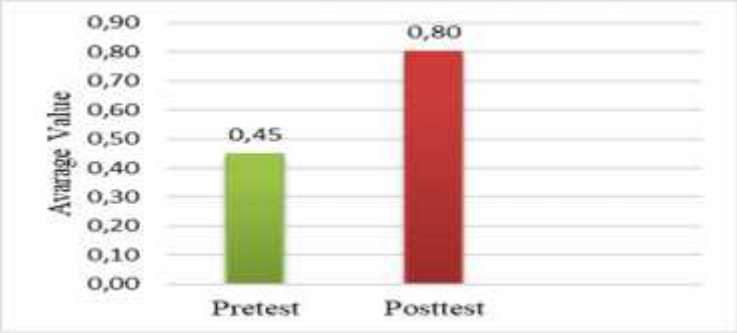

Figure 5. N-Gain Results of Students' Speaking Ability

Figure 5 explains the results of the assessment of the speaking skills of English Language Education students from each class that the pretest and posttest learning scores have increased in speaking ability. It can be seen that the pretest percentage is 0.45% while the posttest is 0.80%. Developing an e-module based on flip book media aims to improve students' speaking skills, especially to improve speaking skills and facilitate students' learning process. It is relevant to the research of Handoyono et.al (2020); the results of the e-Module feasibility test on the brake system by material experts received a score of 81%, categorized as very good, by media experts 85% categorized as very good , with group trials. Small, 83%, was very good, and with large group trials, a value of 79% was good. These results align with research by Nafi'ah & Suparman (2019), which shows that e-modules are suitable for material and media experts. The average material expert validation score reached 4.99 in the very good category, while the media expert validation score reached 4.86 in the very good category. The e-Module includes practice based on student responses from small-scale and large-scale trials. The average small-scale practice test score reached 4.44 in the very good category.

The presence of e-modules has more or less helped provide teaching media that must be utilized in independent teaching and learning activities. Currently, it must be arranged in an electronic formation, including animation, audio, video, and navigation, which shapes students to become more interactive. One of them is by creating e-modules (Fitri Nurmayanti, Fauzi Bakri, 2015). Learning outcomes will be good if success is achieved in learning according to the objectives set (Jayul & Irwanto, 2020; Pantic & Wubbels, 2012). For the learning process to be successful, students need an active role in the learning process (Kazempour, 2014; Puspita et al., 2018). One thing that can be done so that students are actively involved during the learning process is the role of interactive learning e-modules (Herawati & Muhtadi, 2018; Kuswanto, 2019).

Conclusion

The conclusions obtained from the results of this study are that in the development stage of the product feasibility test, material experts obtained results with percentages amounted to 85.62%, while the media feasibility test percentage was 89.58%. It showed that the flip book-based e-module product developed was in the very valid category and was suitable for use

without revision. Furthermore, the practicality test results obtained with a percentage of 0.86% showed that the flip book media-based e-module product developed was in the very good category and suitable for use in learning speaking courses. The test results for improving students' speaking skills each semester regarding increasing speaking skills were in the medium category.

Recommendation

In this speaking e-module, students are given the freedom to look for sources of information or problem-solving material related to the material they need. The use of e-Module is expected to improve students' speaking skills and familiarize students with maximizing internet technology in learning. In general, students' abilities in learning English are required to master three aspects of the language, namely pronunciation, grammar, and vocabulary.

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