

**DEVELOPMENT OF FLIPBOOK-BASED E-MODULES ON
VOCABULARY SUBJECTS OF CLASS VIII AT MTSN BERAU**

Nia Tania¹

STIT Muhammadiyah Tanjung Redeb

Email: tania944@gmail.com

Yuli Puji Astutik²

STIT Muhammadiyah Tanjung Redeb

Email: yulipujastutik05@gmail.com

Abstract

The development of flipbook-based e-modules can encourage the utilization of technology that is currently growing in the world of education while helping students learn independently. Through the E-Module in the form of a flipbook, students can easily access it online and can also help teachers in supporting learning. The purpose of this study is to describe the steps of development, validity, feasibility, and attractiveness of e-modules in the form of flipbooks on the subject of Independence Day Vocabulary material in English subjects developed. This type of research is Research and Development. To produce e-module development products using the Heyzine Flipbook Maker application, researchers refer to the ADDIE model with five development stages consisting of Analysis, Design, Development, Implementation, and Evaluation. The result of students' English vocabulary comprehension skills after the implementation of the developed product obtained a percentage of 80% in the successful category. Based on the results of validity, practicality, and English comprehension ability tests obtained on the development of e-modules can be teaching materials that can be used because they have obtained very valid, very practical categories and results of English comprehension ability tests with the success category.

Keywords: *R&D, E-Module, Flipbook, Vocabulary*

INTRODUCTION

The realm of education is currently experiencing the influence of technological advancements, which have traditionally been prevalent in areas such as politics, communication, commerce, economics, social dynamics, and health. The advancement of technology necessitates the educational sector to continuously adapt to technological developments to enhance the quality of education (Irawan, 2018; Sudjimat & Luchyto, 2019). This includes incorporating information and

communication technology into the educational framework, particularly in learning.

Presently, digital platforms such as e-learning and learning tutor applications have gained popularity as means of facilitating learning (Mustaqim, 2016; Suranti, et al., 2017). Educators are also confronted with the significant challenge of fostering student engagement in learning. This necessitates the alignment of information and communication technology developments with changing student learning preferences, aiming to cultivate a strong propensity for learning. However, the ability of technological knowledge in the face of global developments is still very low. This can be seen with the old method as the old way of educators teaching in class. Teachers who lack competency in technology will be unable to deliver critical thinking skills to students, limiting their ability to develop into transformative individuals (Dharmayanti et al., 2021).

Therefore, individuals must improve their ability to explore and develop their potential autonomously. Educators needing more knowledge and understanding risk decreasing their perceived status among students, perhaps causing a tendency among students to underestimate their competence, perceiving them as ignorant people during the complex issues of modern society. This is a common phenomenon that often appears in how we live. Digital transformation and digitalization are frequently used interchangeably in the literature (Gong & Ribiere, 2021). According to Henriette et al. (2015), digital transformation is the growing adoption of digital technologies to improve organizational efficiency, provide flexibility, and improve employee performance.

Education has transitioned from Education 1.0 to Education 4.0 and is presently transitioning from Society 5.0 to Education 5.0 (Eren, 2020). Technology has penetrated numerous facets of existence in the twenty-first century, including education. In the 21st century, improved teaching and learning capacity are essential for teachers and students. In the knowledge-rich 21st century of the information age, students and educators accept several challenges and opportunities. As a characteristic of the era of globalization, science and technology are developing very fast and increasingly sophisticated, with an increasingly broad role, teachers who have character are needed. To fulfill a significant role in the globalization era of this century, every citizen must be able to adapt to the ever-changing needs of society.

Relationships between educators and technology are complicated in educational institutions. While some history and social studies teachers embrace instant access to online resources, others fear that technology reduces students' capacity for critical thinking (Hicks et al., 2014). Most teachers believe technology can help them teach more effectively, motivate students to learn, encourage positive classroom behavior, and teach vital real-world skills (Schaffhauser & Nagel, 2016). (Hartshorne & Wartshorne, 2015) Teachers typically utilize PowerPoint and video grading for professional communication and presentation of learning materials. Students use technology daily for drills and reviews rather than project-based or collaborative assignments (Rebora, 2016, p. 7).

According to Pressey (2013), many educators must be more convinced that technology will result in more incredible academic achievement as measured by standardized test scores. In this 5.0 era, books have changed from printed form to digital form so that they can be practiced, can maintain the quality of books, and do not become outdated over time. Nurhayati (2019) states that digital books are easy to engage with and easy to carry at anytime and anywhere. Several researchers have revealed some results from their studies focusing on the use of digital textbooks in ELT. Bikowski and Casal (2018) found that all participants were very satisfied with digital textbooks and highly recommended them for English language learning.

There are several advantages of digital textbooks. First, digital textbooks can increase learner flexibility and control, motivation, interest, learning experience, and convenience (Bikowski & Casal, 2018). With interactive textbooks installed on their laptops or computers, learners can also save their study time and effort by carrying paper books (Blazer, 2013). This helps students to quickly determine important information without reading the entire book. In other words, e-books can be viewed anywhere and at any time (Linda et al., 2018). Society 5.0 grows in learning the Internet (virtual space) and actual space (physical space). In a digital society, people apply the Internet to access online resources in virtual space to look for and analyze data or information.

Since the COVID-19 pandemic and technological advances, digital media can present modules. Flipbook Maker is one of the tools that can be utilized to present modules on an electronic display. Flipbook is an application that converts PDF files to other formats, including digital and e-book publishing (Rahayu et al., 2021). As digital learning media, Flipbooks will later include content presented in various media types, such as image text and supporting videos related to the learning material (Linda et al., 2018) (Nufus et al., 2020). Perdana et al., 2021, Interactive digital books based on flip books are modern learning media in the digital age. Therefore, flipbooks are more attractive than printed books (Andini et al., 2020). It is possible to access it by computer, phone, or electronic device.

In other words, its development and implementation may add to students' digital literacy. Based on professionals, technology-integrated learning through flipbooks has helped students' learning process (Andini et al., 2020). Flipbooks have many advantages, including presenting learning material in word sentences, being easy to produce, and being cheap to use anywhere. It is easy to carry and can enhance students' learning activities. Students' vocabulary can be increased using the electronic module Flipbook Maker Media. English vocabulary can be achieved through the application of e-modules because e-modules are one of the learning media designed to present material according to student needs so that it is easy to understand.

Language learning aims to enhance the four skills of English, including listening, speaking, reading, and writing, with a diverse vocabulary and proper grammar, but there are other objectives than this. The primary objective is for speakers to be proficient in the language. The activities of reading, writing, speaking, and listening are the four English skills the learners are expected to master

when learning English, as outlined by Astutik (2019). In this research, the researcher will develop one type of media in the form of digital modules. Based on the results of pre-research that has been conducted at MTsN Berau. Based on the interviews and observations, the researcher concludes that the planned module includes English language skills but that students still need to comprehend this module or printed textbook completely.

Therefore, the learning process proceeds with the educator as the sole information source. As a result, researchers are interested in creating an e-module version of previously printed instructional materials so that they can be accessed from anywhere. With a study entitled “Development of Flipbook Based E-Modules on Vocabulary Subjects Class VIII at MTsN Berau”. The researcher believed that the development of e-modules based on flipbook makers would aid students' creativity in learning English vocabulary, and help teachers to be more enthusiastic about teaching. Also, this teaching material is expected to support students in learning autonomously, increasing student learning outcomes.

METHODOLOGY

The design used in this research was R&D (Research and Development) research. The setting of this research was MTsN Berau. There were three data collection methods used in this research. The first data was obtained from the results of the researcher's observations during the internship activities at the school then collection was an interview. In this research, the researcher interviewed the English teacher to find out what problems or shortcomings occur to the teacher when teaching English using media teaching material with the type of interview used as a structured interview.

The second data collection method used was document analysis which is a method used to review and evaluate documents, both printed documents and electronic documents (Dharmayanti, 2021). Document analysis used by the research was to choose the topics that will be developed by the researcher from the eighth-grade middle school English subject chapter. The data analysis technique used in this research is a descriptive qualitative that describes the results of product development in the form of e-module teaching materials using the Hyzine Flipbook Maker application.

The research instruments used in this research were an interview guide and expert judgment. The next step is to analyze the data from the instrument's validation sheet using a Likert scale and the analysis formula.

Description:

P: Feasibility Percentage

$\sum X_i$: Total Score of Validator Answers

$\sum X$: Total Ideal Score

The researcher asked several questions that have been made before to the teacher related to the use of media teaching material through technology and the theory of the interview questions. The data analysis method in this research has used the theory from Morrison (2010) which consists of five stages, namely analysis, design, development, implementation, and evaluation.

FINDINGS AND DISCUSSIONS

The results of the development carried out by this researcher are to produce E-Module teaching materials using the Heyzine flipbook maker application. This research and development was carried out using the development procedure according to Morrison which was carried out in five stages. The development of the vocabulary flipbook begins with the analysis stage, namely needs analysis, literature study, and survey.

The needs analysis was carried out at MTsN Berau by distributing questionnaires to find out the needs of students in the learning process, previously the researcher observed the school where the author also did teaching practice/internship for three months, as well as a school where the development product was tested or where the researcher conducted research. Literature studies are carried out by looking for research that has been published in a journal, looking for articles that have to do with this research, analyzing student textbooks in the form of LKS that determine the theme of the material, compiling the content of the Independence Day vocabulary flipbook, making a draft which is then used as a reference for designing media Flipbook vocabulary to be developed.

Observation of student need analysis conducted from January 20, 2023, to August 08, 2023, in class VIII MTsN Berau in English subjects showed that the learning process was still teacher-centered, this was seen when the teacher taught using only the lecture method. Learners listen and pay attention to what the teacher says, then record important things. As a result, students will get used to receiving from the teacher only, this is not in accordance with the learning objectives of the independent curriculum which expects student freedom in learning.

In addition, the teaching materials are not interesting and practical. Furthermore, the researchers interviewed the English teacher, which was conducted in a structured manner. The teaching material used in the learning process is the English LKS book for class VIII Semester 1 equivalent written by Septiarti Wijayanti. From the needs analysis process, it can be seen that the material summarized is by the syllabus used in schools equipped with audio listening links, and High Order Thinking Skills (HOTS), but the existing material is still limited, the inside page sheets are still black and white and even very thin, no videos, images, and audio can stimulate students' brains. This is what makes researchers interested in developing Heyzine flipbook maker-based e-modules at MTsN Berau.

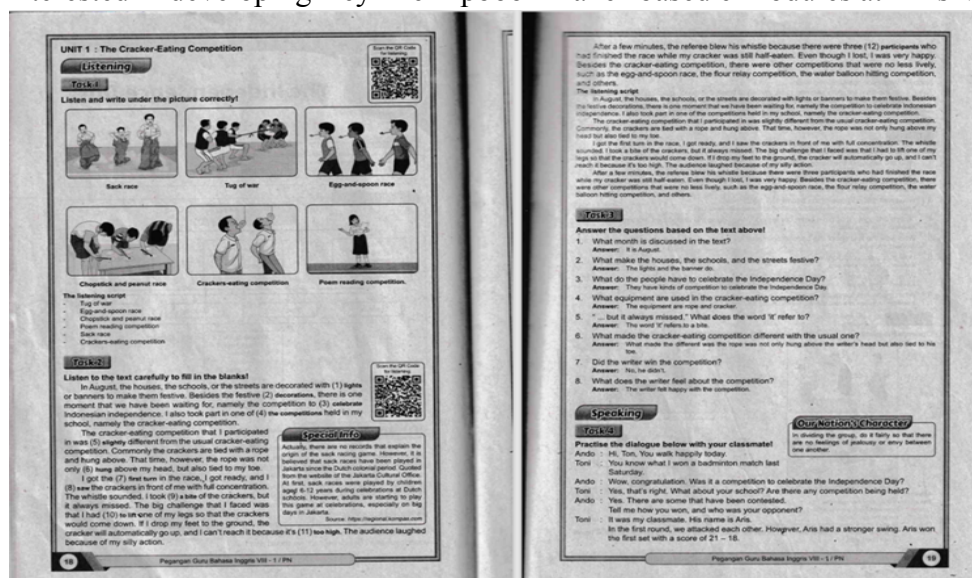


Figure 1. English LKS book

There are several advantages & disadvantages in the English LKS book, including: 1) Unable to present movement, the presentation of material is linear; 2) It is difficult to provide feedback for questions asked that have many possible answers or questions that require complex and in-depth answers; 3) LKS is generally utilized primarily as practice material, albeit with limited content. However, it is worth noting that LKS occasionally incorporates additional terminology and concepts, which may impose a substantial cognitive burden on students. Using one-way presentations, characterized by their lack of interactivity, often results in passive engagement and insufficient comprehension among students; 4) Worksheets tend to be monotonous.

LKS can only display still images, so students are sometimes unable to understand the material quickly. Print media emphasizes more on cognitive lessons, rarely emphasizing emotions and attitudes. Leads to boring learning if not combined with other media. 5) There are concerns because the teacher only relies on the LKS media and utilizes it for personal interests, for example, students are told to work on the LKS then the teacher leaves the class and returns to discuss the LKS that students have done; 6) The paper used in this LKS book is also quite thin and still gray, there are no pictures or colors that make students interested in learning it.

This stage is a follow-up to the analysis stage. At this stage, the teaching material or material is typed in Word and then copied and pasted on the module design page made in PowerPoint (PPT), then from the PPT it is saved in PDF form and converted into the Heyzine flipbook maker application which is designed based on KI and KD used at MTsN Berau. In the Heyzine flipbook maker application, e-modules are given additional images, videos, and audio that support the material presented, to make it easier for educators and students to understand e-modules.

The video included comes from YouTube which has been downloaded previously, as well as the audio that was previously recorded. The development of e-modules as a learning resource for English subjects is designed and developed for class VIII semester 2 on the vocabulary competency of the material “The Independence Day”.

a) Making media program outline

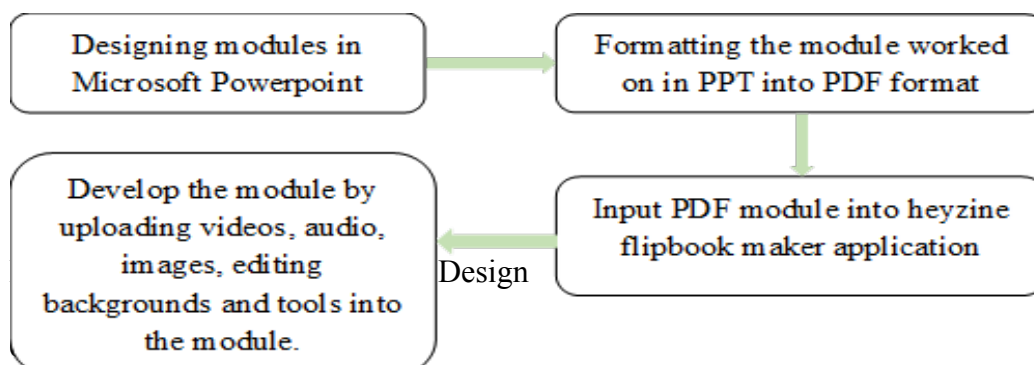
The preparation of e-modules is adjusted to the module structure that has been described in CHAPTER 8. So that the English E-module with the material “The Independence Day” is arranged with the following sub-chapters, i.e. the following:

Table 3. Outline of e-Module Material Design

The Material	The Material Component
The Independence Day	1. The Independence Day Vocabulary
	2. Conversational Dialogue
	3. Definition of Simple Past Tense

	4. Simple Past Tense Formula
	5. Example of Simple Past Tense
	6. Regular and Irregular Verbs
	7. Part of Speech
	8. Quiz

b) Flowchart of e-Modules Design



This study will use the Heyzine flipbook maker to produce instructional material through e-modules. Researchers created this e-module using the Heyzine flipbook creator. Heyzine flipbook maker is software or software used to convert books or other instructional materials into a digital book with a flipbook-like format. The following is a description of the characteristics of the Heyzine flipbook maker-based e-module that researchers have designed.

The display of learning materials in the e-module is developed with activities that are by the scientific steps, namely: observing, questioning, gathering information, reasoning, and communicating. According to the validator, in the step of collecting information, it is better to add pictures and some animations, both video and audio, to attract students' attention.

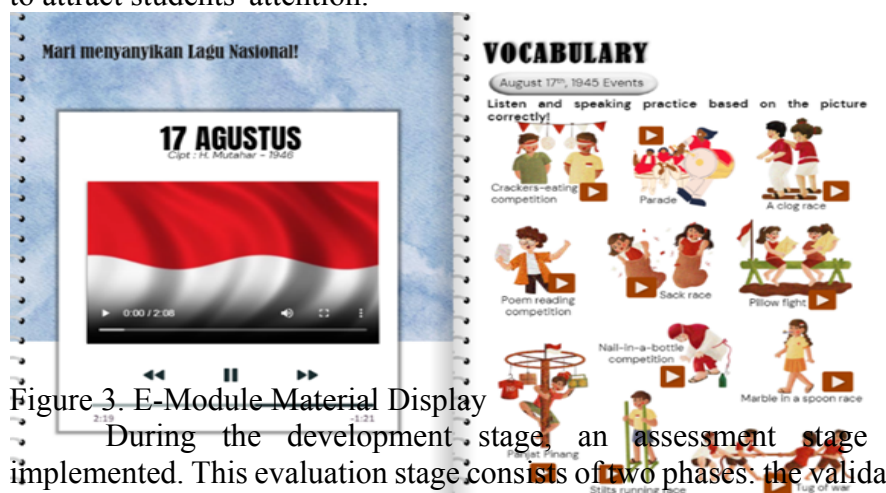


Figure 3. E-Module Material Display

During the development stage, an assessment stage procedure is implemented. This evaluation stage consists of two phases: the validation phase and the practicality phase. The e-module prototype that has been designed along with the research instruments that have been made is first validated by two lecturers and an English teacher. As for the application letter for validation permission by experts,

it must be approved by the supervisor. This aims to test the level of validity before being tested. This aims to test the level of validity before being tested.

Data from the material expert validation results in assessment scores on the material presented in the e-module following the instruments made. Besides contributing to the scores, researchers also received suggestions and input for enhancing the developed e-module content. Based on the results of the validation of e-modules by material experts, it can be seen that the validity of e-modules gets a percentage value of 83.33%, thus getting the category that English e-modules are feasible to use in learning. The results of the validation of the e-module design by design experts in table 4.25, it can be seen that the validity of the e-module gets a percentage value of 76%, so it is categorized that the e-module design is feasible to use for learning with notes needing improvement. The results of the validation of the e-module media by media experts in table 4.26, it can be seen that the validity of the e-module gets a percentage value of 94.66%, so it is categorized that the e-module media is very feasible to use in learning with a note that it needs a little improvement.

Results of the Implementation Stage. At this stage, the e-module began to be tested on students. The trial was conducted on Friday, August 11, 2023 at around 09.20 to 10.00 WITA in class VII-D MTsN Berau, the application of the e-module was carried out on Friday morning when there were no teaching and learning activities so that students could focus more on the e-module. This e-module was tested using a cellphone and laptop that each student brought. This was done to see the difference in the size of the e-module when used on two devices at once. Researchers previously asked for help from the homeroom leader and class leader to convey information to students to bring cell phones or laptops as learning media.

E-modules are received by students through a link that researchers first send to the class leader. During the trial, the researcher directed students to first open the usage instruction sheet on the e-module. Then the examiner gave 35 minutes to study the material, observe, listen, and discuss the subject matter, namely Independence Day. Students are still allowed to ask researchers about material that they still do not understand. During the e-module product trial, students were very enthusiastic about observing the e-module, listening to audio, and others. In addition, the learning module is also equipped with practice questions as an evaluation to measure how well students understand the material that has been presented in the e-module.

1) Practicality Stage

The researcher provided a student response questionnaire to class VIII-D, with 30 students responding, to identify the students' opinion of the e-module allowed by Heyzine Flipbook Maker on the content of disgusting morals. The results of the student response questionnaire can be seen that the average percentage obtained is 83.5%, categorized as feasible. This means that the e-module based on the Heyzine flipbook maker on English material can be used as a learning companion book.

The Evaluation Results. Formative and summative evaluation form a component of the evaluation stage. Formative evaluation is a way to determine the product's quality. The formative evaluation results are utilized as feedback to make improvements. In this study, formative evaluation includes validation from material, design, and media experts, as well as student assessments. Additionally, summative evaluation is designed to assess students' level of mastery of the competencies taught. This means determining students' English comprehension ability based on the results of practice tests after researchers conduct trials in class using digital modules based on the Heyzine flipbook maker so that the learning e-module can be used with minor revisions.

Based on the overview of the validity test scores and practicality trials, it is possible to conclude that the produced e-modules have benefits as media or learning tools in the teaching and learning process, helping to achieve educational goals. Moreover, e-modules enable students to learn independently and master the subject matter to achieve learning objectives.

Table 4. Recapitulation of Expert Validation Results

No	Expert Validation	Score Percentage	Category
1.	Material	83.33%	Feasible
2.	Design	76%	Feasible
3.	Media	94.66%	Very Feasible

At the implementation stage, this stage is in the form of student response questionnaire data. The results of the student response questionnaire can be seen in the table below.

Table 5. Recapitulation of Student Response Questionnaire Results

Student Count	Percentage Score	Category
30	80%	Successful

Summative data is obtained from the results of practice tests regarding the ability of students to understand English subjects in the teaching and learning process using digital modules based on the Heyzine flipbook maker. The recapitulation of data on the results of the exercise test questions on the ability of students to understand English language learning, especially the material of Independence Day on the subject of vocabulary can be seen in the following table.

Table 6. Recapitulation of Exercise Question Test Results

Response Questionnaire Results	Percentage Score	Category
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Students	83.50%	Feasible/Interesting
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Recapitulation of the results of the exercise test questions on the ability of students to understand English language learning. As for accessing the English learning e-module, you can use the link below. <https://bit.ly/welcombacktoenglish1>

1. Advantages of the product

The e-module that researchers developed using the Heyzine flipbook maker application has advantages, namely. E-modules can make it easier for students to learn independently because e-modules can be accessed anywhere and anytime with internet access. E-modules make learning more fun because they are accompanied by full-color pages, audio, images, and animated videos. E-modules help students to more easily understand the material because it is presented in detail and practically. E-modules help learners to achieve learning objectives that are more independent and centered on student needs. E-modules based on the Heyzine flipbook maker are an innovation in the use of technology today for teachers and students.

2. Disadvantages of the product

Besides having several advantages, this Heyzine flipbook maker-based e-module also has disadvantages, including. E-modules in their use must use the help of laptops or computers and cellphones as learning media. The use of e-modules requires internet access or cannot be accessed online, because the media used is a web-based application (fliphTML5). The e-module presented only contains one chapter consisting of Independence Day vocabulary, simple past tense, and recount text.

3. Research limitation

The limitations of research on the development of e-modules based on Heyzine flipbook maker media on Independence Day material on vocabulary subjects include several things. The e-module presented only contains one chapter consisting of Independence Day vocabulary, simple past tense, and recount text. The research only reached the feasibility trial stage on a small scale. The research and data collection process is limited by time, which is approximately a month.

CONCLUSION

The e-module teaching materials using the Heyzine flipbook maker application produced have been developed with the ADDIE model modified by Morrison (2010). Then validation was carried out by material experts, media experts, and design experts obtaining an average value with very attractive/worthy criteria for use. Students' responses to the practicality, feasibility, and attractiveness of e-modules in the form of flipbooks on Independence Day material are declared practical, feasible, and interesting based on responses from students with a percentage of 83.50% "Practical / Feasible / Interesting" criteria and the results of learning implementation from observers with a percentage of 80% "Good" criteria. It can be seen from the results of the assessment of experts that the responses of teachers and students are very satisfying, so the e-module using the Heyzine

flipbook maker application produced is considered suitable for use in learning English: Independence Day material (vocabulary).

In line with the conclusions of this study, there are also suggestions or input from experts, namely: e-module teaching materials using the heyzine flipbook maker application need to be upgraded to e-learning with internet assistance so that it is easily accessible offline as well and can be opened on smartphones and tablets. Then use a new version of Heyzine Flipbook Maker that contains animations, and images related to the material provided.

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