E-Module Teaching Materials Based on Heyzine Flipbook on the Meaning of NKRI for Grade IV Elementary School

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A R T I C L E   I N F O

A B S T R A K

Saat ini masih banyak siswa yang belum memahami materi pembelajaran Pendidikan Pancasila dan Kewarganegaraan. Hal ini disebabkan karena kurangnya media pembelajaran digital yang dapat memfasilitasi siswa dalam belajar PPKn secara mandiri. Berdasarkan hal tersebut maka tujuan penelitian ini yaitu mengembangkan e-modul PKn berbasis flipbook Heyzine pada materi Arti Negara Kesatuan Republik Indonesia (NKRI) Kelas IV Sekolah Dasar. Jenis penelitian ini yaitu penelitian pengembangan R & D (Research and Development). Model pengembangan pada penelitian ini yakni menggunakan model ADDIE. Subjek penelitian yaitu 1 ahli media dan 1 ahli materi. Uji coba kelompok kecil ini dilakukan pada empat siswa dari kelas IV SD. Metode yang digunakan dalam mengumpulkan data yaitu observasi, wawancara, kuesioner, dan tes. Instrumen yang digunakan untuk mengumpulkan data yaitu lembar validasi, lembar kuesioner, dan soal tes. Teknik analisis data yang digunakan dalam penelitian ini yaitu analisis data kuantitatif dan kualitatif. Hasil penelitian yaitu penilaian oleh ahli materi memperoleh 87,50% ahli media memperoleh nilai 84,09% dengan kriteria sangat baik. Penilaian keefektifan pemakaian melalui uji N-gain memperoleh nilai 67,1% dengan kriteria sedang dan kategori tafsiran cukup efektif. Penilaian respon melalui angket siswa didapat skor rata-rata 93% dengan kriteria sangat baik. Disimpulkan e-modul sangat layak digunakan, dan dapat meningkatkan hasil belajar siswa pada mata pelajaran Pendidikan Pancasila dan Kewarganegaraan.

A B S T R A C T

Currently, there are still many students who do not understand the Pancasila and Citizenship Education learning material. This is due to the lack of digital learning media to facilitate students' independent learning of PPKn. This research aims to develop a Civics e-module based on the Heyzine flipbook on the Meaning of the Unitary State of the Republic of Indonesia (NKRI) material for Class IV Elementary School. This type of research is R & D (Research and Development) development research. The development model in this research uses the ADDIE model. The research subjects were 1 media expert and 1 material expert. This small group trial was conducted on four students from class IV elementary school. The methods used to collect data are observation, interviews, questionnaires, and tests. The instruments used to collect data are validation sheets, questionnaire sheets, and test questions. The data analysis techniques used in this research are quantitative and qualitative data analysis. The research results, namely the assessment by material experts, obtained 87.50%, and media experts obtained a score of 84.09% with very good criteria. Evaluation of the effectiveness of use through the N-gain test obtained a score of 67.1% with moderate criteria, and the interpretation category was quite effective. Assessing responses via student questionnaires obtained an average score of 93% with very good criteria. It was concluded that e-modules are very suitable for use and can improve student learning outcomes in Pancasila and Citizenship Education subjects.

1. INTRODUCTION

Education plays an important role in developing students' potential as quality human resources (Lasmawan & Budiarta, 2020; Pranata et al., 2021). Education can also be interpreted as efforts made by educators by providing knowledge and examples, developing creativity, and forming students' character so that they have attitudes, abilities, and skills that are useful for themselves and their environment. In education, there is reciprocal interaction and communication between teachers and students, which is generally referred to as learning activities (Cikka, 2020; Krisanti et al., 2020; Zaifullah et al., 2021). This learning is a systematic series of learning activities to convey information to students that will influence their actions and behavior (Humairah & Wahyuni, 2024; Jain et al., 2021; Pratama et al., 2021). One of the content subjects related to this is Pancasila and Citizenship Education. Pancasila and Citizenship

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Education (PPKn) is one of the subjects that must be studied at all levels of education starting from elementary, middle, and high school (Aprillia & Setiawan, 2022; Zulfikar & Dewi, 2021). Pancasila and Citizenship education in elementary schools aims to provide facilities in terms of character cultivation to students (Parawangsa et al., 2021; Rudiawan & Asmaroini, 2022). The material contained in Pancasila and Citizenship Education is very important in preparing students to become responsible and capable individuals (Magdalena et al., 2020; Mahardika, 2017). Pancasila and Citizenship education also function to instill the values contained in Pancasila so that they become the basis for students to behave (Adha, 2012; Wulandari et al., 2022). Therefore, teachers must design innovative learning activities that can make learning material easier for students to understand.

However, the current problem is that there are still many students who do not understand the learning material for Pancasila and Citizenship Education. This is reinforced by previous findings, which state that many students still have low PPKn learning outcomes (Filivani & Agung, 2021; Perangin-angin & Beru, 2017). Previous research stated that the low PPKn learning outcomes for students were caused by a lack of learning media or inappropriate learning models used by teachers (Kosilah & Septian, 2020; Kurniawan & Saragih, 2016). Based on the results of direct observations of the learning process for Pancasila and Citizenship Education subjects at Jambewangi State Elementary School, it was found that class IV students still had difficulty focusing on the material explained by the teacher. This was because, at that time, the teacher only used the lecture method to explain the material. The results of the interviews also found several problems, namely that students were less active in participating in Pancasila and Citizenship Education learning, which were caused by several factors, one of which was the learning hours at the end of teaching and learning activities. Apart from that, teachers are only guided by the teaching materials or learning resources available at school, namely student manuals and worksheets, which are summarized as the material being taught, causing students to get bored easily, and learning tends to be monotonous. Apart from the problems above, it turns out that students are more interested in things related to technology because they are considered exciting and fun. But in reality, this has not been fully provided by teachers, even though what students expect is something that is interesting, interactive, and digitally based. The solution to overcome this problem is for teachers to meet the needs of students, one of which is by developing Pancasila and Citizenship Education based on digital teaching materials in the form of e-modules. Electronic modules are one of the digital-based, non-printed teaching materials designed to achieve certain learning goals that can be accessed independently by students via computers or smartphones (Rahayu & Sukardi, 2021; Rahmatsyah & Dwiningsih, 2021; Widiastuti, 2021). This digital teaching material is one of the interactive teaching materials that teachers can use to support the learning process. The existence of digital modules is considered to have many advantages compared to printed modules (Kuncahyono, 2018; Winatha, Suharsono, et al., 2018). E-modules are easy for students to study independently via smartphone or computer and can be accessed anytime and anywhere (Marwanti et al., 2022; Rahmawati et al., 2017). So this will increase students' enthusiasm for participating in lessons (Fachrunisa et al., 2022; Izzah et al., 2023; Lase & Sudarma, 2023). Therefore, the use of e-modules will really help teachers during the learning process.

Previous research findings also reveal that E-modules can make it easier for students to learn so that they have an impact on optimal student learning outcomes (Dewi & Lestari, 2020; Jannah et al., 2021; Kimianti & Prasetyo, 2019). Other research findings also confirm that well-designed E-modules can help improve student learning outcomes optimally (Mutmainnah et al., 2021; Utami et al., 2018; Winatha, Naswan, et al., 2018). This is what causes E-modules to be effectively used in learning activities. The advantage of E-modules is that they can be stored in digital form, which is more concise and compact than printed books, allowing users to carry them easily and not require a large space. Apart from that, e-modules are not easily damaged like printed books, so they can be used for longer and do not require special maintenance. However, there has been no development study regarding the flipbook-based Heyzine e-module for Civics subjects. Based on this, this research aims to develop a Civics e-module based on the Heyzine flipbook in material from the Meaning of the Unitary State of the Republic of Indonesia (NKRI) Class IV Jambewangi Elementary School. It is hoped that this research can contribute to the development of teaching materials, provide learning experiences for students, and add new insights into the development of Civics e-modules based on the Heyzine flipbook. Interactive e-modules can also increase student motivation and learning outcomes in Pancasila and Citizenship Education subjects.

2. METHODS

This type of research is R & D (Research and Development) development research. Research and Development is research used to produce certain products and test the effectiveness of these products (Sugiyono, 2012). This research aims to produce a product in the form of teaching materials in the form of

a flipbook-based module on the subjects of Pancasila and Citizenship Education, the material on the Meaning of the Unitary State of the Republic of Indonesia for class IV students. The development model in this research uses the ADDIE model, which consists of five stages: analyze, design, Development, implementation, and evaluation (Sugiyono, 2012). Researchers chose to use the ADDIE development model because they wanted a complete process: analysis, design, Development, implementation, and evaluation. At the analysis stage, problems and learning needs are analysed. At the design stage, e-module teaching materials based on the Heyzine flipbook were designed. Heyzine flipbook-based e-module teaching materials were developed at the development stage, and product validity was tested. At the implementation stage, it was tested on teachers and students to determine the level of effectiveness in learning Pancasila and Citizenship Education. Evaluation is carried out to analyze whether or not the e-module at the implementation stage still has deficiencies and weaknesses. If there are no revisions, the teaching materials are considered suitable for use.

This research was carried out at Jambewangi State Elementary School. The research subjects were 1 media experts and 1 material experts. This small group trial was conducted on four students from class IV of Jambewangi State Elementary School. After the small group trial was completed, a large group trial was conducted to measure the effectiveness of the e-module teaching materials using the Heyzine Flipbook website. The methods used to collect data are observation, interviews, questionnaires, and tests. Observation and interview methods are used to collect data regarding problems in the field. The test method collects data on student learning outcomes after using teaching materials. The test technique used in this research is the pretest-posttest, each consisting of 15 questions in multiple-choice form. The instruments used to collect data are validation sheets, questionnaire sheets, and test questions. The instrument grid is presented in Table 1.

Table 1. Research Instruments

No	Criteria	Indicator
Profile Exploring Reading Text Information		
1	In accordance with the goals to be achieved	1. Teacher responses to Pancasila and Citizenship Education learning 2. Teacher responses regarding teaching materials in the Pancasila and Citizenship Education subjects
2	Appropriate to support lesson content that is facts, concepts, principles, or generalizations	1. The need for teaching materials in learning Pancasila and Citizenship Education
Media Profile		
3	Technical quality	1. Design 2. Size 3. Color 4. Font

The data analysis techniques used in this research are quantitative and qualitative data analysis. The data analyzed is from media and material expert validation and pretest-posttest results. The feasibility and effectiveness test results in a score. Material and media experts obtained Feasibility test data from validation results. The scores obtained from the questions are added and converted into a percentage. It can be calculated using the N-gain formula to determine the level of product effectiveness through pretest-posttest. If the N-gain score has been obtained, it can be converted into a percentage (%) to assess the effectiveness of the product that has been developed.

3. RESULT AND DISCUSSION

Results

The development carried out in this research resulted in e-module teaching materials on the subjects of Pancasila and Citizenship Education in class IV Jambewangi State Elementary Schools, especially on the material "The Meaning of the Unitary State of the Republic of Indonesia (NKRI)". This research shows increased learning outcomes for fourth-grade students at SD Negeri Jambewangi by creating e-module teaching materials using the Heyzine Flipbook website. In developing the e-module, the ADDIE model is developed with the following stages. First, analyze. At this stage, analyzing begins with the needs and problems in learning. The interviews showed that fourth-grade students felt bored quickly and

had difficulty understanding the material explained by the teacher. This happens because the teacher only uses conventional lecture methods to present the material. Apart from that, students are also less active in Pancasila and Citizenship Education lessons due to several factors, one of which is the lesson time at the end of learning. Teachers' limitations in utilizing technology also create less enjoyable learning conditions. Students tend to be interested in technology-related things because they are considered fun. Students also feel that the implementation of learning tends to be monotonous because teachers are only guided by learning resources provided by the school, namely printed books and worksheets, which are summarized into teaching materials to carry out learning activities. This will influence students' learning outcomes in class IV, which is relatively low.

The second stage is design. At this stage, designing flipbook-based e-module teaching materials contains material about the meaning of the Unitary State of the Republic of Indonesia or NKRI in value IV Pancasila and Citizenship Education subjects. The researcher determines the learning outcomes to be used, then compiles and prepares the components in the e-module, such as cover, table of contents, foreword, instructions for use, materials, links connected to supporting information materials, practice questions, bibliography, glossary, and author profile. The third stage is development. At this stage, the researcher began to develop e-module teaching materials using the Canva application, which was then converted into a flipbook using the Heyzine Flipbook website to access via the available link. The development results are presented in Figure 1.

Figure 1. E-Module Development Results Using the Heyzine Flipbook Website

The module using the Heyzine Flipbook website that has been developed is then tested for validity by material experts and media experts to assess its validity and suitability. The results of data analysis show that the E-module has received very good qualifications from experts so that it is suitable for use in learning. The validation results are presented in Table 2.

Table 2. Product Validity Results

Type Validation	Percentage	Criteria
Material Validation	87,50%	Very Worth It
Validation Media	84,09%	Very Worth It

The fourth stage is implementation. At this stage, the zine-based e-module teaching materials were then tested on teachers and students to determine the effectiveness of Pancasila and Citizenship Education learning. The effectiveness test was conducted during teaching and learning hours, starting with small group trials. This small group trial was conducted on four fourth-grade students at Jambewangi State Elementary School who had different levels of learning outcomes by administering pretests, posttests, and filling out student response questionnaires. After the small group trial was completed, a large group trial was conducted to measure the effectiveness of the e-module teaching materials. The activities carried out are the same as small-scale trials. Starting with a pretest to measure students' initial abilities, students will also be given posttest questions and fill out a response questionnaire. The results of the pretest and posttest scores are presented in Table 3.

Table 3. Pretest Posttest Score Results

No	Criteria	Pretest	Postest
1	Maximum Value	73	93
2	Minimum Value	26	73
3	Average	53	85

Based on the table above, the average pretest is 53, and the posttest is 85, indicating increased student learning outcomes. Then, after getting the pretest and posttest scores in Table 3, the N-gain test can be carried out to calculate the pretest and posttest data that have been carried out in large groups. The results of the data analysis show that an N-gain score of 0.7 is included in the criteria for moderate gain. Then, the scores obtained are converted into percentages to determine the level of product effectiveness. The value obtained was 67.1, which is classified as quite effective. Meanwhile, the results of teacher and student responses to the e-module teaching materials developed. Meanwhile, for the results of teacher and student responses to e-module teaching materials developed through response questionnaires, it is known that the average student questionnaire results were 93% and the teacher response questionnaires were 100% on average, which means that the product developed received a very good response for used.
In the final stage of evaluation, the e-module teaching material product developed using the Heyzine Flipbook website on the subject content of Pancasila and Citizenship Education, material on the Meaning of the Unitary State of the Republic of Indonesia, is in accordance with the research objectives based on the results of the feasibility test and effectiveness test.

Discussion

The results of data analysis show that the e-module developed using the Heyzine Flipbook website on the subject content of Pancasila and Citizenship Education, material on the Meaning of the Unitary State of the Republic of Indonesia, received very good qualifications from experts. Several factors cause this. First, e-modules using the Heyzine Flipbook website are suitable for use in learning because they can improve student learning outcomes. E-modules can be used by students in the learning process as teaching materials that provide a fun and interactive learning experience (Ilmi et al., 2021; Pratono et al., 2018; Rahmatunisa et al., 2022). Apart from that, the content of the material is interesting. It was created using the Heyzine Flipbook website so teachers and students can access it online via the provided link. Using this e-module will make students enthusiastic about participating in learning, and it will improve student learning outcomes (Sriyanti et al., 2021; Triwahyuningtyas et al., 2020). Apart from that, the presentation of e-module teaching materials through the use of digital technology such as computers or smartphones is also considered to make it easier for students to be able to study independently whenever and wherever they wish (Fisnani et al., 2020; Seruni et al., 2019).

Second, e-modules using the Heyzine Flipbook website are suitable for use in learning because they can increase student motivation. Interactive teaching materials in e-modules certainly play an important role in helping teachers learn (Fahmi et al., 2021; Sunismi & Fathani, 2016). This is because its creation refers to the learning achievements and objectives that have been set, equipped with supporting information related to the material and practice questions which can make students interested in being active in learning (Sriyanti et al., 2021; Triwahyuningtyas et al., 2020). This is in line with research which states that digital teaching materials have an important role in helping students during teaching and learning activities, especially making it easier for students to understand better the material being studied (Maulana et al., 2022; Netofa & Japa, 2022). This can be proven by using a teacher response questionnaire with an average score of 100% and a student response questionnaire with an average of 93%, so it can be concluded that this e-module received a very good response to be used to make things easier for teachers and students during learning. E-modules can increase learning interactivity by allowing students to interact with material more actively and interactively, such as through pictures, videos, and animations (Lase & Sudarma, 2023; Syahrial et al., 2021). Thus, e-modules can help increase efficiency and effectiveness in the learning process and enable students to learn more interactively and flexibly.

Third, e-modules using the Heyzine Flipbook website are suitable for learning because they can increase a pleasant learning atmosphere. E-module is a development of teaching material in the form of modules from print to digital (Sriyanti et al., 2021; Triwahyuningtyas et al., 2020). Compared to printed modules, this digital module is superior, more interactive and innovative because it can display material in videos, images and links. In addition, this e-module is more practical to use anywhere and at any time, thereby increasing a pleasant learning atmosphere (Sriyanti et al., 2021; Sukendra et al., 2023). Besides that, e-modules are very interesting because they can develop teacher creativity in teaching materials. E-modules are considered to make it easier for teachers to distribute information to students. Previous

research findings also reveal that electronic modules or e-modules can help students understand the material according to their abilities (Pratiwi et al., 2021; Sari & Manuaba, 2021). E-modules have the advantage that their appearance can resemble a book and can be equipped with sound, images, and video (Maulana et al., 2022; Netofa & Japa, 2022). Therefore, teaching materials in the form of interactive e-modules are necessary to help teachers and students achieve the expected learning objectives. Previous research findings state that E-modules can simplify the dissemination of information by enabling faster and easier distribution via the Internet and other electronic devices (Koderi, 2018; Triwahyuningtyas et al., 2020). Other research also reveals that using e-modules in learning is considered effective in optimizing students' understanding of the material to increase students' interest and motivation in learning (Aufa et al., 2021; Febriana & Sakti, 2021). The advantages of the Heyzine flipbook-based e-module developed in this research. These advantages include: 1) teachers can use it to support the ongoing learning process, 2) it can increase learning independence because students can open and study this e-module independently without waiting for an explanation from the teacher, 3) it can be accessed and used at any time and anywhere via computer or smartphone, 4) can be used online by accessing e-modules via the link provided, 5) creates interesting and enjoyable learning for students, 6) increases student enthusiasm and motivation for learning due to the presentation of interesting material, and 7) helps introduce digital technology to students in learning. The limitation of this research is that the e-module using the Heyzine Flipbook website, which was developed, is only intended for PPKn learning for elementary schools. The implication of this research is that the application of e-modules using the Heyzine Flipbook website can help students learn and improve student learning outcomes.

4. CONCLUSION

Based on the results of research into the development of heyzine flipbook-based e-module teaching materials about the meaning of the Unitary State of the Republic of Indonesia (NKRI), it can be concluded that the e-module is very suitable for use based on validation by material expert validators and media experts. The e-module developed is also considered quite effective in improving student learning outcomes. This can be seen from the results of the N-gain value and the results of the posttest-pretest. The e-module that has been developed can be used as an alternative teaching resource that can make it easier for teachers to deliver the material. The benefits of using e-modules in learning are that they make it easier for students to understand the material, increase learning abilities and independent learning, and increase enthusiasm and motivation for learning to improve student learning outcomes.

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