



E-MODULE DEVELOPMENT ON RIGHTS AND OBLIGATIONS LEARNING MATERIALS TO INCREASE STUDENTS' UNDERSTANDING AT GRADE III

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PENGEMBANGAN E-MODUL PADA MATERI KEWAJIBAN DAN HAK UNTUK MENINGKATKAN PEMAHAMAN PESERTA DIDIK KELAS III

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ABSTRACT

Abstract: This paper describes the process of e-module development on the learning material of rights and obligations to increase the understanding of class III students. The research described in this paper is developmental research (Design and Development) with the ADDIE model, which consists of five stages, Analyze, Design, Development, Implementation, and Evaluation. The validation of development products is tested through 1 media/design expert, 1 material expert, and 1 linguist. The data collection instruments in the research use validation sheets and pretest and posttest questions. E-module development on the right and obligation to increase understanding of class III students meets excellent criteria with an average percentage of validity at 91.37%. After testing the effectiveness through data processing of pretest and posttest value results, it was found that there has been an increased understanding of class III students after applying the learning media of the e-modules that have been developed. It is also indicated by the difference between the average value of the pretest and posttest results, where the value of the posttest is an average of 94.33 higher than the value the pretest by an average of 80,33. The implementation in this paper is recommended for further researchers in order to be able to develop learning media like e-modules by applying a particular learning method or a more interesting and creative application. In addition, it is also required further research validation will be applied more than once and the effectiveness tests are made on more subjects.

Keywords: e-module development, obligations and rights, students' understanding

Abstrak: Tulisan ini mendeskripsikan proses pengembangan e-modul pada materi kewajiban dan hak untuk meningkatkan pemahaman peserta didik kelas III. Penelitian yang dipaparkan dalam tulisan ini merupakan penelitian pengembangan (Desain dan Pengembangan) dengan model pengembangan ADDIE yang terdiri dari lima tahap yaitu Analyze (Analisa), Design (Desain), Development (Pengembangan), Implementation (Penerapan), dan Evaluation (Evaluasi). Validasi produk pengembangan diujikan melalui 1 orang ahli media/desain, 1 orang ahli materi, dan 1 orang ahli Bahasa. Instrumen pengumpulan data penelitian menggunakan angket lembar validasi dan soal pretest dan posttest. Pengembangan e-modul pada materi kewajiban dan hak untuk meningkatkan pemahaman siswa kelas III memenuhi kriteria sangat baik dengan persentase validitas rata-rata sebesar 91,37%. Setelah dilakukan uji efektivitas melalui olah data hasil nilai pretest dan posttest ditemukan bahwa terdapat peningkatan pemahaman peserta didik kelas III setelah menggunakan media pembelajaran berupa e-modul yang sudah dikembangkan. Hal ini juga ditunjukkan dengan adanya perbedaan rata-rata nilai hasil pretest dan posttest, dimana nilai hasil posttest dengan rata-rata 94,33 lebih besar dibandingkan nilai hasil pretest dengan rata-rata 80,33. Penerapan pada tulisan ini direkomendasikan untuk peneliti selanjutnya agar dapat mengembangkan media pembelajaran seperti e-modul dengan menggunakan metode pembelajaran tertentu atau dengan pengemasan yang lebih menarik dan kreatif. Selain itu, diharapkan juga dalam penelitian selanjutnya validasi dilakukan lebih dari satu kali dan uji efektivitas dilakukan dengan subjek yang lebih banyak lagi.

Kata Kunci: pengembangan e-modul, hak dan kewajiban, pemahaman siswa

CITATION

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INTRODUCTION

With the application of the 2013 curriculum in elementary school, learning is conducted using integrational thematic where competence in every subject is combined and bound in a theme that then provides learning material for learners (Prasetyo, T. 2017). As in Djamaludin, A. and Wardana. 2019., learning is an interaction process between learners and educators and learning resources in a learning environment. Learning is an effort by an educator to achieve a process of scientific acquisition, ability and skill, of developing an attitude and trust in learners. In practice, to achieve a goal of learning, a teacher must be able to determine a strategy that is necessary to implement it. Before carrying out a teacher's learning must determine the method of learning, the teaching materials and media to be used.

Pancasila education and citizenship (PPKn) is one of the subjects at the lower classes and upper classes. The load of pancasila education and citizenship (PPKn) at elementary school is usually combined with a load of Indonesian learning. In the performance of elementary school learning, the government has given handbooks to both teachers and learners. However, the teaching materials already provided by the government needed to be reproduced and developed so that learners would not only receive new materials or knowledge on the basis of just one source (Rahmawati, T. F., 2022). To optimize the learning process, not only teaching materials need to be prepared by teachers, another aspect that teachers can develop in an effort to optimize the learning process is the learning media.

The learning media is everything that can be used in learning activities to be able to transmit messages from the sender (educator) to the recipient (learner), and thus stimulate the mind, feelings, attention, and interest of the learner so that the learning process runs optimal, based on that definition, the medium of learning can help supplement the need for

learning and can help both teachers and learners and can accomplish an effective learning objective. The learning media is one important factor in improving the quality of learning because as the technology of education continues to demand efficiency and effectiveness in learning (Kristanto, A. 2016). According to Wonda, H., Kota, M.K., & Arianti, D. D, 2022, The media teachers use gives at least a more pleasant way to achieve satisfying study goals. Media capable of increasing student motivation will also impact the learning result that proves increased learners understanding. As in Ramli, A., Rahmatullah., Inanna., Dangnga, T. 2018, Pointing out that the medium of learning is an integral component of a learning system, meaning that it cannot be separated from the learning process because without the learning medium, the learning process cannot be fully realized, and therefore the learning media can certainly affect the student learning results. One of the learning media that a teacher can develop is an e-module.

According to Nugraha, Subarkah and Saris, 2015 (in Winatha, K. R., etc. 2018) e-modules are a learning medium using computers that display text, pictures, charts, audio, animation and video in the learning process. E-module development is one of the innovations a teacher can make learning more effective, assist the teacher in delivering learning materials, as well as e-modules can also be an already available resource complement. E-modules are generally accessible using both computers and smartphones. The e-modules are also equipped with use guidelines for both teachers and learners. Thus, even if they are outside the learning activity in the classroom, both teachers and learners can access them, and learners can do learning on their own. Furthermore, according to Arriany, I., etc. 2020, explains that e-modules can be tools or materials that help teachers effectively provide enrichment to learners who have not yet learned their lesson. One of the characteristics

of a module is it can be a self-assessment for learners, thus learners are able to measure or know the extent of the ability and mastery of the participants in matter. The e-module is also a learning media innovation that can be developed in the hope of increasing the motivation of learners in learning and improving the learning results of learners.

This research also corresponds with previous research conducted by Rahmawati, T. R, 2022. with interactive contextual teaching and learning in healthcare class v. The e-modules developed especially on the load of Pancasila education and citizenship (PPKn) materials in the 5th class of elementary school. The development model in this study is an ADDIE model with the five-stage analysis, design, development, implementation and evaluation. An e-module developed through validation by three experts. a media expert, a materials expert and a linguist. From this study it states that the developed e-modules are highly feasible and could be used by learners in the 5th class of elementary school materials for attention.

This corresponds by research of Desyandri & Vernanda, D. (2017), which makes teaching development with an addie model has excellent qualifications. Based on the teacher's and student response analysis, the teaching material developed in this study is highly practical. The materials developed are also highly effective, judging by the activities and learning results of learners.

Previous research by Kuncayono, 2018, carried out e-module development in thematic learning in elementary school that shows that e-modules are practical and assist in thematic learning activities, in addition e-modules can be used on their own by learners using computer-based equipment.

Based on early observation and research interviews at Panyingkiran I elementary school together with the teacher of class III, She explained that in the study activities especially at Pancasila education and citizenship (PPKn) view time, students still have difficulty understanding in learn about obligations and right materials. It's marked by learners still faltering in their understand about

obligations and right. One of the factors that affect it are relatively short and less profound materials, the lack of the learning media used and the development of the learning module is still infrequent.

In this study, researchers are performing e-module development on obligations and right materials to increase understanding class III participants. As for the purpose of this research is to describe the process of e-module development on class III obligations and rights materials; Knowing the validity of the e-module on the obligations and right materials in class III and knowing the impact the e-module use on the obligations and right materials in class III in enhanced understanding class III participants.

THEORETICAL SUPPORT

The medium of learning

The medium of learning is everything that can be used to channel messages (learning materials), which can stimulate the attention, interest, mind, and feelings of learners in learning activities to achieve the purpose of learning (Kristanto, A. 2016). The learning medium is a prepared tool or tool, created or even developed with the hope of being used to assist teachers in delivering lesson materials and to help learners receive, understand, and learn materials until they can achieve the purpose of learning. A learning medium therein consists of information that may be obtained from the Internet, books, movies, television, and so forth that may be communicated to learners.

(Kuncayono., & Aini. D. F. N., 2021)

A learning medium therein consists of information that may be obtained from the Internet, books, movies, television, and so forth that may be communicated to learners. The presence of technology-based learning media will motivate learners in improving learning centered on learners.

E-Module

As technology development especially in education always requires teachers to realize efficiency and effectiveness in learning activities. One of the endeavors that can be

used to accomplish learning activities efficiently and effectively is the use of the learning media. One of the technology-based media learning that can be used and developed by a teacher is an e-module.

According to Rahmi, 2018. (Widiana, F. H., Rosy, B. 2021) e-module is one of the forms of self-study media constructed in a digital form designed for the purpose of efforts to achieve the competence of learning and to make learners more interactive.

Dewi, M. S. A., & Lesati, N. A. P., (2020), Explains that the e-module is one of the kinds of learning materials or media developed using electronic devices that are furnished with text, pictures and videos. With the e-modules students will better understand the material well because the learning process developed is not only reading but using several methods.

Understanding of learners

The success of a learning is not only determined by teachers and learners, surely there are other factors such as the methods of learning, the media of learning and so forth. One purpose of learning is to increase learners' understanding of the lesson materials or the competence taught. Understanding itself is a process, an act, a way learners understand things.

According to Sardiman quoted by Shodiq, 2009 (in Yonanda, D. A., 2017) states that understanding is dynamic in content, one is expected to be creative. Understanding results in imagination and thought. When learners have a good understanding of things, they are able to deal with or answer questions or problems in learning. Bloom and Winkel quoted by Shodiq, 2009 (in Yonanda, D. A., 2017) categorizing understanding in their cognitive realm includes one's ability to capture both the meaning and the meaning of a material being studied. Operational verbs that refer to comprehension are such: explaining, proposing, comparing, identifying, detailing, elaborating, grouping, setting, example, etc.

METHOD

In this study, researchers develop an e-module on the subject and specified rights for class III learners. The subject of this study was students at class III in Panyingkiran I Elementary School with 15 students, the research design in this study is one group pretest and posttest. The method used in this study is a type of design and development research (DnD). The research model is an ADDIE (design, development, integration, and design). This ADDIE model was chosen because it describes a systematic process for development research such as e-module development. This model was chosen in hopes of providing ease and providing a guideline for researchers in the working process.

The research approach in this study is a qualitative research approach for describe the e-module development process on class III for the obligations and rights materials; for getting and analyzing the validation data of materials, media and language an acquired with a validation sheet from the expert validation; And the quantitative used in the validation of the e-module development on the obligations and right materials and the effectiveness of the e-modules on the obligations and right materials to enhanced understanding class III. The instruments used in this study are the validation sheets and the pretest and posttest problems that are subsequently analyzed qualitatively and quantitatively. Qualitative data analysis is performed for both comments and input given by the expert validator. Quantitative data analysis is done to get results from assessments given by the validator made using the likert (4 scale) with a category (1) not good, (2) not good, (3) good, (4) excellent. The formulas for data processing on that validity according to Puspitoningrum, 2015 (in Giatry, S. N., Mustika, D. 2022)

$$V = \frac{\text{Data collections score}}{\text{Maximum score}} \times 100\%$$

Description:

V : percent of validation

Analysis then continues by combining all validation results with the following formula:

$$V = \frac{V_1+V_2+V_3}{3} \times 100\%$$

Description:

V : percent of validation

V1 : Expert validation 1

V2 : Expert validation 2

V3 : Expert validation 3

In knowing the extent of valiance and a learning media product requires validating. Assessments on the levels of validation and media learning e-modules on the obligations and rights materials of class III participants can be seen as follows according to honorability and Riwanto, 2021 (in Giatri, S. N., Mustika, D. 2022).

Table.1 Valid level of product

No	Criteria	Level of validity
1	85.01%-100%	Very valid
2	70.01%-85.00%	Valid enough
3	50.01%-70.00%	Less valid
4	01.00%-50.00%	Invalid

A quantitative data analysis is done to know the impact of the e-module use on the obligations and rights materials in class III in increasing learners' understanding by pretest and posttest using the non-parametric tests for 2 abnormal distribution of sample groups with uji-w (wilcoxon).

RESULTS AND DISCUSSION

Results

To test the effectiveness of these modules with one group pretest and posttest performed in class III by the number of samples of 15 students. At this level of effectiveness testing, learners are given instruments of pretest, then treated of the e-module learning media use on the obligations and right materials, after which learners are given posttest. An analysis of pretest results and posttest data found that pretest and posttest

results were of abnormal distribution, so for conducting effective tests using non-parametric for 2 sample groups with an abnormal distribution of 'uji-w' (wilcoxon).

There are some criteria in this test (1) (*sig.*) significance/chance = 0.05 = 5%; (2) receive H_0 if testing result value *sig.*) accuracy = 0.05; (3) reject H_0 if the value of test results (*sig.*) $< < = 0.05$. As for the hypothesis: (1) H_0 : there is no increase in class III learner's understanding on the obligations and rights materials after using the developed e-modules; (2) H_1 : there is an increased understanding of class III participants on obligations and rights materials after using the e-modules developed.

This test was performed by using a statistic data processing app, SPSS 16. Based on the results of the data the pretest and posttest values results found that:

Table 2. Pretest and Posttest Mean

	N	Mean	Minimum	Maximum
Pretest	15	80.83	63	100
Posttest	15	94.33	80	100

Table3. Uji-W (Wilcoxon)

	Posttest – Pretest
Z	-3.314 ^a
Asymp. Sig. (2-tailed)	.001

Based on Wilcoxon test (*uji-w*) results for two bonded data groups (pretest and posttest) acquired opportunity value (*sig.*) = $0.001 < 0.05$. Then, H_0 is denied, and H_1 accepted, meaning there is an enhanced understanding of class III participants after using the study media of the e-modules that have been developed in the research. It is also indicated by the difference between the average value of pretest and posttest results, where the value of posttest results is an average of 94.33 greater than the value of pretest results by an average of 80,33.

To find out how much increased understanding of class III learners on obligations materials and rights may be known to use normalize gain (about) by the following criteria:

- 1) if $Ngain \geq 0.70$, there is a high rise (a person's efforts to increase his or her proficiency);
- 2) if $0.30 \leq Ngain < 0.70$, then there is a moderate increase (one's attempt to increase its performance)
- 3) if the $ngain < 0.30$ is thus a low improvement (one's attempt to increase its performance is low).

The formula of Ngain is:

$$Ngain = \frac{Posttest\ Score - Pretest\ Score}{Maximun\ Score - Pretest\ Score}$$

Then, input the pretest and posttest value data on the above formula, as follows:

$$Ngain = \frac{94,33 - 80,33}{100 - 80,33} = 0,7117 = 71,17\%$$

Based on the calculation, the ngain score was 71.17%. It would mean that an increase in understanding of class III learners after using e-modules on obligations and rights materials is 71.17%, it can be said that there is great effort in improving ability or understanding.

Discussion

The following is shown the results of the e-module development research on the obligations and right materials to increase class

III learner's understanding with ADDIE development models (design, development, development, development, development, and design), as follows:

1) Analyze

In this phase of analysis there are two things to do: the competence analysis required to both learner and material analysis (1) the competence analysis on the aspect of knowledge that will be required of learners according to the current curriculum. Based on basic Pancasila education and citizenship (PPKn) analysis in class III on obligations materials found on subject 4 subtheme 2 in learning 2, 4, 5 and 6. After doing basic competence analysis, next is the description of competencion to the indicator and the purpose of learning. (2) analysis of matter and design is a stage at which researchers analyze which materials to develop. As for the material analyze is the material on Class III class 4 subtheme 2 the obligations and right materials as school citizens. Based on the fact that on the ground, there has been no development of teaching materials or learning media such as e-modules that are used especially on Pancasila education and citizenship (PPKn) resource and non-essential information regarding these materials only. Based on the analyze, it appears that it takes a learning media development to facilitate learners in presenting information materials that are expected to increase learners' understanding. As for the utility and advantage of the developed e-modules as follows. E-module utility:

1. May be used as additional tools from the already available resource book (Bupena or Tematik)
2. May assist teachers in the transmission of the learning materials
3. Can help both teachers and learners achieve the purpose of learning
4. Accessible through a mobile phone

The extra of e-module:

1. It forms a PDF file with a fraction of its size, and is accessible through mobile phones and laptops and is therefore accessible only to him at any time

2. The content of it is packed with as much attention as possible that it can help learners be more interested in learning activities
3. There are several animated images and videos that can help build learners' knowledge in the learning process.
4. There are materials and several activities that can be carried out so that they can build learners' knowledge in the learning process
5. There is an evaluation that can measure the level of understanding of learners.

2) Design

At this stage is an e-module design for class III learners on obligations and rights materials consistent with core competence (KI) and basic competence (KD) learning according to the applied curriculum. In this e-module, it is made up of several parts;

1. The cover is the front cover on image1.(1) and the back cover on image1.(2)
2. E-module identity on image1.(3)
3. E-modulation instructions in figure 1.(4)
4. Core competence and basic competence, on image1.(5)

5. The learning materials or contents of the e-modules contained in these modules are made for each study based on Basic Competence (KD) that contains a load of Pancasila education and citizenship (PPKn), which is 2.4.5 and 6. The presentation of materials in these e-modules is made as interesting as possible (on image1.(6) -1.(10)) to attract learners with the hope that learners will be more interested in studying the material and thus have an increased understanding of the learner
6. The practice of the learner in these modules is a worksheet of the learner that consists of each study by on based competition that has a load of Pancasila education and citizenship (PPKn) learning, which is 2.4.5 and 6, on image1.(11)
7. Formative testing presents the problem to learners to measure the participants' ability to master the material, on image1.(12).



(1)



(2)



(3)



Figure 1. Overview of the design e-module

3)Development

In this stage, this development is done with the purpose of creating a learning media: e-modules for class III learners on valid, practical and effective obligations and rights materials to be worthy of later use in learning activities. The e-module was designed using

the *Canva* application, then modified into a PDF shape. In this stage and revision, the e-module deduction on the obligations and rights materials for class III participants is validated by a media expert Mr. AAH, he's a lecturer in the PGSD study program from the Indonesian University of Education. Validated by a

materially expert Mr. KR, he's a lecturer in the PGSD study program from the Indonesian University of Education. And validates by a linguist, Mrs. DAK, she's a lecturer in the PGSD study program from the Indonesian University of Education.

Based on the validation stage done by researchers, the validation of media/ design by the validator of media experts/design e-modules on the obligations and rights materials is 92.5% so it can be construed that these modules are worthy of use with some notes such as font consistency, image composition appears in the e-modules, editors or writing that need to be reconfigured, and background consistency. Furthermore, validation of materials from the validator of experts 'e-module materials on the lie-and rights materials is 90% so it can be construed that these modules are worthy to be used with several notes that the addition of animation videos is adjusted to the purpose of learning, give narration to the image, phrase used more clearly, sentence in the question more clearly. Then, the validation of the validator of the special-language expert on the obligations and rights materials is 91.6% so it can be constructed. These modules are worth using with some notes, the consistency of writing such as the use of punctuation and correspondence in the phrasing of sentences.

According to previous explanations, the validation of the e-modules on the and the rights for learners of the class III that have been developed in whole have an average percentage of 91.37% which means the validation is valid. With such a level of validity, the e-modules on the obligations and rights materials for class III participants that have been developed are worthy of use.

4) Implementation

At this stage researchers conducted an experimental development product called the at-study media of e-modules in elementary school. In this study, the product test is conducted at Panyingkiran I elementary school, the goal of this stage is to test the effectiveness of the learning media use already developed on the subject in which this study is class III educated participants.

Based on Wilcoxon test (*uji-w*) results for two bonded data groups (pretest and posttest) acquired opportunity value (*sig.*) = $0.001 < 0.05$. Then, H_0 is denied, and H_1 accepted, meaning there is an enhanced understanding of class III participants after using the study media of the e-modules that have been developed in the research. It is also indicated by the difference between the average value of pretest and posttest results, where the value of posttest results is an average of 94.33 greater than the value of pretest results by an average of 80,33. To find out how much increased understanding of class III learners on obligations materials and rights may be known to use Normalize gain (*Ngain*). Based on the calculation, the *Ngain* score is a 71.17%. It is therefore notable that the increase in understanding of class III participants after using e-modules on obligations and rights materials is 71.17% so it can be said that there is a great effort to improve ability or understanding.

5) Evaluation

The evaluation stage is the last stage in the e-module development on the obligations and right materials in class III. This research is Design and Development (DnD) in an educational field in which a product of learning media is produced. The development model used in this research is an ADDIE model. According to Tegeh, 2014 (in Desyandri and Vernanda, D. 2017) ADDIE development model consists of five stages: 1) *Analyze*; 2) *Design*; 3) *Development*; 4) *Implementation*; and 5) *Evaluation*.

CONCLUSIONS

AND

RECOMMENDATIONS

E-module development on obligations and rights materials is done by caring for needs, curriculum and of Pancasila education and citizenship (PPKn) learning materials that are obligations and rights as class III Panyingkiran I elementary school.

The e-module is designed using the *Canva* application, then modified into a PDF form so it is easier to access. The validity of the e-module is done one time with one media/ design expert, one material expert and one

linguist. With an average percentage of 91,37% which means valid valises. Having tested effectiveness through an exercise of pretest and posttest value results has been found that there has been an increase in understanding of class III participants after using the learning media of the e-modules that have been developed in the research. It is also indicated by the difference between the average value of pretest and posttest results, where the value of posttest results is an average of 94,33 greater than the value of pretest results by an average of 80,33. The study is recommended for further researchers in order to develop learning media such as e-modules by using a particular learning method or by packaging that is more interesting and creative, it is also expected that in further research validation more than once and effectiveness tests are made on more subjects.

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