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Development of Digital Interactive Module "E-MOSI" (Elektronik Modul Puisi) for Grade IV Students of Elementary School of Kemala Bhayangkari 02

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Abstract

This study aims to develop electronic module teaching materials for fourth-grade poetry and determine their feasibility and practicality. This research is motivated by the difficulty of understanding Indonesian subjects, especially poetry materials, and the lack of alternative teaching materials. The novelty of this teaching material is in the form of modules that can be accessed utilizing gadgets and laptops, as well as the completeness of materials supported by audio and video learning. This type of research is development research, using the research and development method, consisting of ten development steps (potentials and problems, collecting data, product design, design validation, design revision, product trial, product revision, usage trial, product revision, and mass production. Based on these ten steps, the development of the digital interactive module "E-MOSI" (Elektronik Modul Puisi) or Electronic Poetry Module resulted in feasibility by the three validators, namely 85.7% with very feasible criteria. The percentage of practicality for small group trials was 86% of teacher responses and 94% of student responses, while large group trials resulted in teacher responses of 92% and student responses of 87.8%. The test results were also calculated using the t-test, with ha results being accepted, i.e., there were differences before and after using "E-MOSI". This study concludes that the development of the digital interactive module "E-MOSI" for fourth-grade students of Elementary School of Kemala Bhayangkari 02 met the very feasibility criteria and high practicality category.

Keywords: Interactive Module, Electronic Module, Poetry

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Abstrak

Penelitian ini bertujuan untuk mengembangkan bahan ajar modul elektronik untuk puisi kelas empat dan menentukan kelayakan dan kepraktisannya. Penelitian ini dilatarbelakangi oleh sulitnya memahami mata pelajaran bahasa Indonesia khususnya materi puisi, dan kurangnya alternatif bahan ajar. Kebaruan bahan ajar ini berupa modul yang dapat diakses memanfaatkan gadget dan laptop, serta kelengkapan materi yang didukung dengan pembelajaran audio dan video. Jenis penelitian ini adalah penelitian pengembangan, dengan menggunakan metode penelitian dan pengembangan, terdiri dari sepuluh langkah pengembangan (potensi dan masalah, pengumpulan data, desain produk, validasi desain, revisi desain, uji coba produk, revisi produk, uji coba penggunaan, revisi produk, dan Berdasarkan sepuluh langkah tersebut, pengembangan modul interaktif digital "E-MOSI" (Elektronik Modul Puisi) menghasilkan kelayakan oleh tiga validator, yaitu 85,7% dengan kriteria sangat layak. untuk uji coba kelompok kecil adalah 86% tanggapan guru dan 94% tanggapan siswa, sedangkan uji coba kelompok besar menghasilkan tanggapan guru sebesar 92% dan tanggapan siswa sebesar 87,8%.Hasil uji juga dihitung menggunakan uji-t, dengan hasil ha diterima yaitu terdapat perbedaan sebelum dan sesudah menggunakan "E-MOSI" Penelitian ini menyimpulkan bahwa pengembangan modul interaktif digital "E-MOSI" untuk siswa kelas IV SD Kemala Bhayangkari 02 memenuhi kriteria sangat layak dan kategori kepraktisan tinggi.

Kata Kunci: Modul Interaktif, Modul Elektronik, Puisi

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INTRODUCTION

The learning process delivers messages from a facilitator or teacher to students (Wijaya et al., 2016). The message is conveyed face-to-face by the teacher with specific learning models, where the message has a nature that tends to be both realistic and abstract so that not all subjects can be delivered through the same model (Wahyudi, 2019). Therefore, the delivery of these messages can be supported by the presence of teaching materials, such as modules, multimedia, games, and other types of teaching materials, both in digital and printed form (Fadliansyah, 2019).

One of the principles currently used as a basis and reference to support learning activities is the use of information and communication technology (ICT). The use of ICT in learning activities is considered significant to increase the efficiency and effectiveness of learning (Dewi et al., 2019; Talebian et al., 2014). It shows that information technology can help a learning process supported by facilities or teaching materials that can reinforce learning outcomes (Andyani et al., 2020; Ishaq et al., 2020).

Teaching materials include three aspects, namely knowledge, attitudes, and skills, to achieve a learning competency (Astuti et al., 2019). The statement explains that teaching materials in the learning process are essential; apart from being a source of knowledge, they must also include aspects of attitude and skills. Teaching materials that are adapted to certain materials are to help students in the learning process.

Various kinds of teaching materials are books, modules, student worksheets, and others. Some teaching materials are in print, and some are in the form of non-print/digital (van Acker et al., 2013). Interesting teaching materials will not make students bored in the learning process (Sariyatun et al., 2021). On the other hand, with teaching materials, students are always waiting for learning that seems fun. Moreover, these teaching materials can involve students in the learning process. It has been proven in research conducted by Safitri and Sukamto (2020) and Lestari et al. (2020) that the development of digital-based teaching materials could improve learning outcomes on the basic concept of multiplication. However, schools have not completed specific teaching materials and could assist students in independent learning. To achieve this, it is more possible to develop module teaching materials for independent learning.

Interactive module innovation is a solution in responding to today's educational challenges. As interactive module technology develops, it is no longer printed. Students can use the interactive module simply by opening their respective gadgets. Therefore, an educator must utilize technology in the learning process to develop digital-based interactive modules.

Digital interactive modules can be used by students easily, namely through gadgets or laptops. In addition, digital interactive modules present material with a combination of media, such as text, images, and videos (Anandari et al., 2019; Rahmatsyah & Dwiningsih, 2021). Thus, students can open and read learning materials arranged in digital interactive modules anytime and anywhere. It can also increase students' learning motivation in Indonesian subjects, which tend to use many reading texts.

The Indonesian Language is one of the compulsory subjects at all levels of education. At the elementary school level, it becomes the initial foundation that must be prioritized. However, the Indonesian Language becomes boring learning (Anwar et al., 2020). Students are lazy in reading a text. It can be an obstacle for students in working on questions, and the results are not optimal. Moreover, with the current situation, students are reading gadgets more than reading textbooks. Thus, digital interactive modules greatly support learning in improving reading and making it easier to understand certain materials.

Based on an interview conducted on October 2, 2020, with the fourth-grade teacher of Elementary School of Kemala Bhayangkari 02, namely Mrs. Ika Puspita Agustiani, S.Psi., S.Pd., it was revealed that Indonesian is an easy subject, but students still found it difficult to understand the materials. In fact, this subject is a compulsory subject at the education level. The material taught is very much, one of which is poetry material. Students were still confused in distinguishing between poetry and rhymes.

It was because of the lack of alternatives in solving problems when delivering poetry material. The teaching materials used were only thematic books and student worksheets (LKS). Moreover, with today's highly sophisticated developments, there was no technology used to convey poetry material. For this reason, special facilities or modules for poetry material are needed in accordance with current learning to attract students to read and understand it.

In addition, the use of digital interactive teaching materials at Elementary School of Kemala Bhayangkari 02 was still minimal due to the limitations of teachers in utilizing technology. Teachers still used printed teaching materials. Time constraints were also an obstacle for a teacher. Aside from teaching, teachers must also complete classroom administration. Thus, teachers at Elementary School of Kemala Bhayangkari 02 did not have time to think about the existence of digital interactive teaching materials, especially poetry material.

Therefore, it is necessary to have additional references to support learning in poetry material. References that can be used are interactive module teaching materials specifically for poetry. The module was designed with technology accessible for students or teachers to use. Thus, the digital interactive module is a new reference equipped with materials, pictures, videos, and evaluations (Bekti et al., 2021). In the end, students no longer learn only from printed books and in the form of boring reading texts.

This research is vital because poetry is part of the compulsory subjects that must be achieved at the elementary school level (Sujinah, 2020). Thus, students do not only follow the lesson, which only enters the right ear and leaves again with the left ear but really understands the material presented. Through module teaching materials that are not, as usual, it is hoped that students will be interested in reading and eager to learn and create a fun learning atmosphere without feeling bored. Moreover, the digital interactive module is devoted to one material, namely poetry. Finally, students can understand poetry material well.

This digital interactive module is better known as the Electronic Module (e-module). E-modules have an independent nature, which students can use without the help of other people or facilitators because the content of the material is detailed, with systematic and easy-to-understand. The e-module functions the same as the print module, namely, to convey material, but it is not monotonous, just written text. Learning through e-modules can be used by teachers in delivering online and offline learning (Rahmatsyah & Dwiningsih, 2021; Muzijah et al., 2020). Thus, this learning innovation makes learning meaningful.

Based on the problems described, it is necessary to follow up in the research and development of digital interactive modules specifically on poetry material for fourth-grade students. It is hoped that "E-MOSI" (Electronic Poetry Module) can motivate students to learn without the assistance of others and make it easier for students to understand the material presented.

METHODS

Research Design

This research design used the research and development (R&D) research type. This type of research is often known as development research, where the research method is to produce a particular product and test its effectiveness. Meanwhile, another opinion states that research is carried out in stages, continuously, structured, and regularly as mentioned by Nusa in *Research and Devolopment*. In this study, the product developed was in the form of an electronic module and was named "E-MOSI" (Elektronik Modul Puisi) or Electronic Poetry Module.

This study used a development model with ten steps and is commonly called the R&D cycle. The following is a figure of the development model steps as mentioned by Sugiyono in *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R&D [Educational Research Methods: Quantitative, Qualitative and R&D Approaches]*.

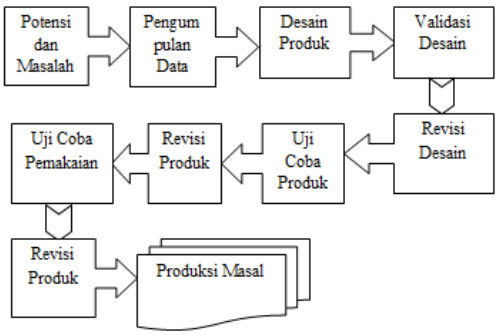

Figure 1. Development Steps

Testing a product was done repeatedly, namely narrow trial and broad trial (Hasyim, in Asmah, 2020). In addition, a product evaluation was also carried out, and several revisions were made to produce a product feasible for use.

Research Procedure

The procedure in this study employed a development model, according to Sugiyono, with ten steps of the R&D cycle as follows:

Potentials and Problems

In this step, the researchers began by identifying the potentials and problems in Elementary School of Kemala Bhayangkari 02. The researchers analyzed them through observation and interviews. Observations were made to find out the problems of learning Indonesian. Meanwhile, interviews showed the lack of potentials for digital-based teaching materials so that learning seemed boring and monotonous.

Collecting data

The researchers collected various information from potentials and problems. Furthermore, the researcher also analyzed that the innovation of teaching materials specifically for poetry material was needed to help students in the learning process. Therefore, it is necessary to develop an electronic poetry module to motivate students to learn new things and seem fun.

Product Design

At this product design stage, the researchers began to design electronic modules as interactive teaching materials. It was supported by text, pictures, and videos so that students are interested and easy to understand the poetry material. It was done as an initial step in answering the problems in the first step.

Design Validation

Design validation is an activity to assess whether the product design is more effective than before. This step presented three validators. Here are the validation indicators:

Table 1. Validation Aspects

No	Aspects
1.	Material
2.	Module Presentation
3.	Visual Communication
4.	Language

Design Revision

Next, after design validation, it is design revision. In this step, researchers made improvements to the design obtained from input, suggestions, and criticism by the validators. For example, there was an apparent weakness in the product, and then the researchers tried to address that weakness. It was done by improving the module designs.

Product Trial

After obtaining a product that had been validated and revised, the next step was product testing. This step is often called an early-stage trial, carried out on a narrow scope. It was to obtain whether the electronic module was more effective and efficient than the previous print module.

Product Revision

The next step, product revision, is product improvements from the input obtained in the previous step. The authors carried out the product revision so that the "E-MOSI" product was even better. Thus, the product was ready to be tested for subsequent use.

Usage Trial

After the product was improved in the revision step, the product was tested on a broad scope. In this step, the product was tested on fourth-grade students of Elementary School of Kemala Bhayangkari 02. It was hoped that by using "E-MOSI", learning outcomes would increase, and learning objectives would be achieved following existing basic competencies.

Product Revision

Product revisions are carried out if there are several weaknesses in the use trial in a

broad scope. It is a follow-up to the usage evaluation in the previous step. The researchers made improvements. It was done to improve the product so that the resulting product was maximal.

Mass Production

Mass production is carried out as a follow-up step if the developed product is declared feasible and effective. To get a feasible and effective product, it should have been tested several times in the previous steps.

Data Sources and Research Subjects

The data source of this research was obtained through observation and interviews with one homeroom teacher for the fourth grade of Elementary School of Kemala Bhayangkari 02. Regarding the research subject, the development of "E-MOSI" involved 20 fourth-grade students and a fourth-grade teacher of Elementary School of Kemala Bhayangkari 02.

Data Collection

Collecting data in this study utilized questionnaires and tests.

Questionnaire

A questionnaire is a data collection technique done by giving respondents a set of questions or written statements to answer. This study used a closed question questionnaire type. The goal was for respondents to be faster and easier to fill out, and researchers could analyze the results. The questionnaire functioned to find out information in "E-MOSI" feasibility through a validation sheet filled out by several validators. Meanwhile, students and teachers also filled out a questionnaire to find out the responses of students and teachers to "E-MOSI".

Test

The test is a set of question sheets containing statements or questions that must be done by students or a group of people properly, correctly, and honestly to produce a value according to its purpose (Afandi in Meifisya, 2020). The various tests are seen from the form of the questions: multiple-choice, short answers, or descriptions. This study employed a test in the form of multiple-choice questions as many as 15 items. It was because the poetry material was relatively short and would be discussed further in the next level. This test aimed to determine the effectiveness, namely to what extent the role of "E-MOSI" for fourth-grade students of Elementary School of Kemala Bhayangkari 02 through pretest and posttest. The pretest was carried out before learning to use the "E-MOSI" product, while the posttest was conducted after the treatment using the "E-MOSI" product.

Data Analysis

Validation data analysis

Validation data analysis aimed to determine the product feasibility, namely "E-MOSI" through a questionnaire by the validators. The questionnaire used a Likert scale with five alternative answers. Meanwhile, feasibility can be calculated from the questionnaire validation sheet with the formula:

$$P = \frac{\sum X}{\sum Xi} \times 100\%$$

Description:

P = Feasibility/validity percentage

$\sum X$ = The number of scores obtained from the validators

$\sum Xi$ = Maximum score

The results of the feasibility percentage data were then converted to the interpretation criteria of expert validation (Akbar in Rizqi, 2019):

Table 2. Criteria of Expert Validation

No	Percentage	Criteria
1.	85%-100%	Very feasible
2.	70%-84%	Feasible
3.	55%-69%	Less feasible
4.	40%-54%	Not feasible
5.	25%-39%	Very not feasible

Practicality Test Data Analysis

Practical analysis was obtained from the questionnaire responses of teachers and students as audiences or users. The

questionnaire used five-level criteria Likert scale, which was then calculated by the formula:

$$\text{Percentage } \% = \frac{\text{total score}}{\text{maximum score}} \times 100\%$$

The percentage results of the teacher and student responses were then converted to the validity criteria first. The following are the criteria for validity (Akbar in Rizqi, 2019):

Table 3. Validity Criteria

No	Validity Criteria	Validity Level
1.	81.00 - 100.00	Very valid (can be used without revision)
2.	61.00 - 80.00	Valid (can be used but needs minor revision)
3.	41.00 - 60.00	Invalid (recommended not to use because it needs major revision)
4.	21.00 - 40.00	Invalid (cannot be used)
5.	00.00 - 20.00	Very invalid

The practicality level results can be seen with the above criteria, which were then adjusted to the criteria for the module validity. The criteria are as follows:

Table 4. Practicality Criteria

No	Criteria	Description
1.	KVM > 90%	Very high
2.	80% ≤ KVM < 90%	High
3.	70% ≤ KVM < 80%	Moderate
4.	60% ≤ KVM< 70%	Low
5.	KVM < 60%	Very low

Description: KVM (Module Validity)

The "E-MOSI" product is "practical" if it reaches the minimum limit of 60.00 or is in a low category. On the other hand, if it is less than the minimum limit, it is "impractical".

Usage Trial Analysis

The trial use in this study used two tests, namely pretest and posttest. The tests were conducted to determine the effectiveness of "E-MOSI". Through the two tests, there should be an increase before and after treatment or the use of "E-MOSI". The pretest and posttest results were analyzed by the below formula as mentioned by Sugiyono in *Statistics for Research*:

$$\text{Me} = \frac{\sum \text{Xi}}{\text{n}} \times 100$$

Description:
Me = Mean score
$\sum$ Xi = Total score
n = Total number

The pretest and posttest data were analyzed by t-test to determine the significant difference before and after using "E-MOSI". The following is the paired sample t-test formula used:

$$\frac{\text{X1} - \text{X2}}{\sqrt{\frac{\text{s1}^2}{\text{n1}} + \frac{\text{s2}^2}{\text{n2}} - 2\text{r}\left(\frac{\text{S1}}{\sqrt{\text{n1}}}\right)\left(\frac{\text{S2}}{\sqrt{\text{n2}}}\right)}}$$

Description:
X1= Mean of sample 1
X2= Mean of sample 2
S1= Standard deviation of sample 1
S2= Standard deviation of sample 2
s12= Variance of sample 1
s22= Variance of sample 2
r = Correlation between two samples
n = Number of samples

The criteria for concluding the t-test results are that if–t-table ≤ t-count ≤ t-table, Ho is accepted.
Ho: There is no significant difference in scores before and after using "E-MOSI".
Ha: There is a significant difference in scores before and after using "E-MOSI".

RESULTS AND DISCUSSION

Research on the digital interactive module "E-MOSI" used a development model of Sugiyono. The development model consists of ten steps: potentials and problems, collecting data, product design, design

validation, design revision, product trial, product revision, usage trial, product revision, and mass production. Thus, the research results are described as follows.

The researchers identified the potentials and problems in Elementary School of Kemala Bhayangkari 02. Potential results obtained through interviews revealed that digital-based teaching materials used in learning were minimal. Meanwhile, the problem results obtained were a lack of understanding in learning Indonesian.

The information obtained by the researchers was finally collected. These potentials and problems were then solved by developing module teaching materials that are no longer printed. The module is electronic-based, which can be accessed via gadgets or laptops. Thus, the module was designed by combining several media, such as text, images, audio, and video. The design of the "E-MOSI" module teaching materials on each page started with the A5 (14.8 cm × 21 cm) module size and the Comic Sans MS font. The preparation of teaching materials for the "E-MOSI" module, completed step by step, was then tested and validated by several validators.

There were three validators in this step: validator I, validator II, and validator III, who were teachers at the research location. This validation activity was to assess the product being developed whether it met the criteria and was feasible to be tested. The number of assessments from the three validators above was then averaged; if it is declared feasible, the "E-MOSI" module teaching materials can be used for learning.

In the results of validator I, a total score of 88 out of a maximum score of 100 was obtained, with a percentage of 88%. The input from the first validator was to add audio to the sample poem section. Overall, the teaching materials for the "E-MOSI" module were interesting and good.

The assessment results of the validator II got a total score of 79, with a percentage of 79%. The validator II concluded that the electronic poetry module was declared feasible for use in learning without revision. The score given by validator III was 90, with a percentage of 90%. Furthermore, the third validator concluded that the electronic poetry module was feasible to use without any revision. The following is the calculation of the percentage of the three validators:

$$P = \frac{88+79+90}{300} \times 100$$

$$P = 85.7\%$$

The result of the validation calculation above showed 85.7%. The result was then converted in Table 2 into the very feasible criteria. The conclusion obtained from the validator's assessment is that the "E-MOSI" module teaching materials were very feasible.

From the validation activities carried out by the three validators, there were several inputs for "E-MOSI". It was carried out to improve or revise the design. The following are the revisions provided by the validator: in the sample poem section, the researchers were asked to provide additional audio/video. Also, the suggestion given was to add practice questions.

Trials at this stage are commonly referred to as narrow trials. The application in small groups was followed by six students and one class teacher, beginning with the pretest, treatment, and posttest. The following are the results of small group trials:

Table 5. Small Group Trial Results

No	Description	Small group	
		Pretest	Posttest
1.	Number of students	6	6
2.	Mean	49.7	86.6
3.	The lowest value	33	80
4.	The highest score	73	93.3

The test results in the table above were then calculated using the t-test formula to obtain information about significant differences.

Table 6. Small Group T-Test Results

Trials	Data	T-count	T-table	α	Dk (n-1)	Des
Small Group	Pretest / Posttest	6.61206	2.57058	0.05	5	Ha is accepted

Based on the table above, the calculation of the t-test in the small group obtained a t-count of 6.61206 and a t-table of 2.57058. The conclusion is that t-count > t-table, so Ha was accepted. Or, there was a significant difference in values before and after using "E-MOSI".

This step also included the teacher and student questionnaire responses. The results of the teacher questionnaire responses were 43, with a maximum score of 50. The following is the percentage calculation of the teacher questionnaire responses to "E-MOSI":

$$\text{Percentage \%} = \frac{43}{50} \times 100\%$$

$$= 86\%$$

The conclusion from the percentage results above shows that the teacher questionnaire response was very valid, and it was then converted in Table 4, revealing that the module's practicality was in the high category. Meanwhile, from the results of filling out questionnaires by students, a mean of 47 was obtained from a mean maximum score of 50.

$$\text{Percentage \%} = \frac{47}{50} \times 100$$

$$= 94\%$$

The conclusion from the student response questionnaire results denotes that the "E-MOSI" module was very valid. Furthermore, it was converted in Table 4, belonging to the very high practicality category. From these results, there were still revisions, namely the existence of sentences that were not clearly read.

In a small group trial activity, several weaknesses were found in the "E-MOSI" product. Then, students provided inputs obtained after using the module. The input was done to improve the digital module to make it more perfect. Input from students in small groups was the presence of unclear sentences.

The usage trial at this stage was carried out in class IV in large groups. This trial consisted of 14 students and one class teacher. This large group began with a pretest, then learning to use the electronic module, and finally, a posttest. The following are the results of the large group trial.

Table 7. Trial Results

No	Description	Large Group	
		Pretest	Posttest
1.	Number of students	14	14
2.	Mean	52.9	84.2
3.	The lowest value	33	73.3
4.	The highest score	66	93.3

The test results in the table above were then calculated using the t-test formula to obtain information about significant differences.

Table 8. Large Group T-Test Results

Trials	Data	T-count	T-table	α	Dk (n-1)	Des
Large Group	Pretest ——— Posttest	8.18225	2.16037	0.05	13	Ha is accepted

The large group trial results obtained a t-count of 8.182257 and a t-table of 2.16037. In conclusion, t-count > t-table so that Ha was accepted, or there was a significant difference in value before and after using "E-MOSI". In this step, the teacher and students also filled out a response questionnaire. The result of the teacher's response questionnaire was 46, with a maximum score of 50. The following is the percentage calculation of the teacher's response questionnaire to "E-MOSI":

$$\text{Percentage \%} = \frac{46}{50} \times 100\%$$

$$= 92\%$$

The conclusion from the percentage results above indicates that the teacher response questionnaire was declared very valid, and it was then converted in Table 4 that the module's practicality was in the very high category. Furthermore, the results of filling out

questionnaires by students obtained a mean of 43.9 from a mean maximum score of 50.

$$\text{Percentage \%} = \frac{43.9}{50} \times 100$$

$$= 87.8\%$$

The conclusion from the results of the student response questionnaire shows that the "E-MOSI" module was very valid and was then converted to Table 4 which was the category of high practicality. From these results, there were still revisions, namely input on the summary and competency test sections equipped with learning audio.

Product revisions in this step were carried out to improve weaknesses during previous trials. There were inputs from students for the product "E-MOSI," adding audio on page 16 of the competency test so that the instructions for doing it are clearer and adding audio to the summary section. Furthermore, mass production is an activity to disseminate the developed product to several schools. In this case, researchers began to publish their products at SD Supriyadi and MI Roudhotus Syubban.

CONCLUSION

From the research data and discussion on the development of the "E-MOSI" digital interactive module, it can be concluded as follows:

The development of the digital interactive module "E-MOSI" used the research and development method of Prof. Dr. Sugiyono with ten steps. Potentials and problems were identified through interviews and observation. Then, data were collected to get information from the first step. The product design then began with the appropriate design. Furthermore, the design validation included the validation test of the three validators and was declared very feasible. The design revision was then carried out as an improvement step from the input and suggestions from the validators. In product trials, narrow scope or small group trials were carried out first. Then, a product revision was conducted, where the researchers improved the product from suggestions or input from previous trials. After that, the usage trial covered product trials in large groups and product revisions as improvement steps obtained from input and suggestions in previous trials. Finally, mass production was a step to disseminate the product to other schools.

The digital interactive module "E-MOSI" was very feasible for use in learning, especially poetry material. The feasibility results were obtained from the assessment of the three validators. Each validator gave a score with a percentage of 88%, 79%, and 90%.

The "E-MOSI" digital interactive module was practically used in the learning process, as evidenced by the teacher and student response questionnaires. The percentage of teacher response questionnaire results was 86% in the small group trial and 92% in the large group test. Meanwhile, the students' responses were 94% in the small group trial and 87.8% in the large group trial.

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REFERENCES

Anandari, Q. S., Kurniawati, E. F., Piyana, S. O., Melinda, L. G., Meidiawati, R., & Fajar, M. R. (2019). Development of electronic module: Student learning motivation using the application of ethnoconstructivism-based flipbook kvisoft. *Jurnal Pedagogik*, *6*(2), 416–436.

Andyani, H., Setyosari, P., Wiyono, B. B., & Djatmika, E. T. (2020). Does technological pedagogical content knowledge impact on the use of ICT in pedagogy? *International Journal of Emerging Technologies in Learning (IJET)*, *15*(3), 126–139.

Anwar, S., Pramujiono, A., Astuti, S. B., & Ardianti, M. (2020). Pembelajaran bahasa indonesia untuk generasi milenial. *Jurnal Ilmiah FONEMA : Jurnal Edukasi Bahasa dan Sastra Indonesia*, *3*(1), 58–67.

Astuti, W. P., Marwiyah, M., Ihsani, A. N. N., & Rachmawati, A. (2019). Pengembangan bahan ajar mata kuliah pangkas rambut lanjutan. *Jurnal Ilmiah Pendidikan Teknik dan Kejuruan*, *12*(1), 1–10.

Asmah, S., Yeni, L. F., & Titin, T. (2020). Development of interactive multimedia based on lectora inspire in kingdom monera material. *JPBIO (Jurnal Pendidikan Biologi)*, *5*(2), 114–126.

Bekti, N., Dwi, W., Gola, N., Raudhotus, R., Nuraini, L., & Anggraeni, F. K. A. (2021). Pengembangan modul interaktif berbasis Macromedia Flash 8 pada materi optik geometri. *ORBITA: Jurnal Kajian, Inovasi dan Aplikasi Pendidikan Fisika*, *7*(1), 123–135.

Dewi, R. K., Wardani, S., Wijayati, N., & Sumarni, W. (2019). Demand of ICT-based chemistry learning media in the disruptive era. *International Journal of Evaluation and Research in Education*, *8*(2), 265–270.

Fadliansyah, F. (2019). Efektivitas media neo snake and ladder game terhadap kemampuan komunikasi matematis siswa. *EduBasic Journal: Jurnal Pendidikan Dasar*, *1*(1), 11–20.

Ishaq, K., Azan, N., Zin, M., Rosdi, F., Abid, A., & Ijaz, M. (2020). The impact of ICT on students' academic performance in public private sector Universities of Pakistan. *International Journal of Innovative Technology and Exploring Engineering*, *9*(3), 1117–1121.

Lestari, I. P., Dewi, R. F. K., & Ulia, N. (2020). Pengembangan You-Mathbook untuk meningkatkan, pemahaman konsep perkalian pada, siswa SD Islam Darul Huda Kota Semarang. *Profesi Pendidikan Dasar*, *7*(1), 105–120.

Meifisya, T., Egok, A., & Yuneti, A. (2020). Penerapan model children's learning in science berbasis kearifan lokal pada pembelajaran IPA siswa kelas IV SD Negeri 3 Srikaton. *Journal of Elementary School (JOES)*, *3*(2), 129–135.

Muzijah, R., Wati, M., & Mahtari, S. (2020). Pengembangan e-modul menggunakan aplikasi Exe-Learning untuk melatih literasi sains. *Jurnal Ilmiah Pendidikan Fisika*, *4*(2), 89–98.

Rahmatsyah, S. W., & Dwiningsih, K. (2021). Development of interactive e-module on the periodic system materials as an online learning media. *Jurnal Penelitian Pendidikan IPA*, *7*(2), 255–261.

Rizqi, M. (2019). Desain perangkat pembelajaran dengan pendekatan pendidikan matematika realistik berbasis kemampuan pemahaman matematis. *Prosiding Seminar Pendidikan Matematika dan Matematika*, *1*, 1–11.

Safitri, E., & Nurkamilah, S. (2020). Pengembangan bahan ajar digital berbasis android untuk peserta didik berkebutuhan khusus. *JOEAI: Journal of Education and Instruction*, *3*(2), 296–304.

Sariyatun, S., Suryani, N., Sutimin, L. A., Abidin, N. F., & Akmal, A. (2021). The effect of digital learning material on students' social skills in social studies learning. *International Journal of Instruction*, *14*(3), 417–432.

Sujinah, S. (2020). Tantangan dan solusi pembelajaran bahasa indonesia di era Covid-19. *Stilistika: Jurnal Pendidikan Bahasa dan Sastra*, *13*(2), 256–271.

Talebian, S., Mohammadi, H. M., & Rezvanfar, A. (2014). Information and Communication Technology (ICT) in higher education: Advantages,

disadvantages, conveniences and limitations of applying e-learning to agricultural students in Iran. *Procedia - Social and Behavioral Sciences*, *152*, 300–305.

van Acker, F., van Buuren, H., Kreijns, K., & Vermeulen, M. (2013). Why teachers use digital learning materials: The role of self-efficacy, subjective norm and attitude. *Education and Information Technologies*, *18*(3), 495–514.

Wahyudi, N, G. (2019). Desain pesan pembelajaran di era digital. *Evaluasi Jurnal Manajemen Pendidikan Islam*, *3*(1), 104–135.

Wijaya, E. Y., Sudjimat, D. A., & Nyoto, A. (2016). Transformasi Pendidikan abad 21 sebagai tuntutan pengembangan sumber daya manusia di era global. *Prosiding Seminar Nasional Pendidikan Matematika*, *1*, 263–278.