



## E-Module Development Using Professional 3D Pageflip on Negotiation Materials

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### Abstrak

Tujuan penelitian ini adalah untuk (1) mengembangkan media e-modul menggunakan 3D Pageflip Profesional pada materi negosiasi, (2) mengetahui kelayakan e-modul oleh ahli materi, ahli bahasa dan ahli media, (3) mengetahui kepraktisan e-modul melalui uji coba perorangan, uji coba kelompok kecil, dan uji coba lapangan, (4) mengetahui keefektifan e-modul melalui hasil evaluasi peserta didik. Penelitian ini dikembangkan dengan menggunakan model 4D yang terdiri dari empat tahapan yaitu pendefinisian, perencanaan, pengembangan, dan penyebaran. Berdasarkan hasil penelitian, maka dapat disimpulkan bahwa hasil validasi oleh ahli materi adalah pada revisi pertama 58,6 %, revisi kedua 75 % dan revisi terakhir 97%. Hasil validasi oleh ahli bahasa pada revisi pertama 60,7%, revisi kedua 82% dan revisi terakhir 96%. Hasil validasi oleh ahli media pada revisi pertama 50%, revisi kedua 70% dan revisi terakhir 93%. Hasil dari uji coba perorangan 50%, uji coba kelompok kecil, 80%, dan uji coba lapangan 97,8%. Hasil ketuntasan yang diperoleh pada evaluasi akhir mencapai 100% ketuntasan. Jadi, dapat disimpulkan bahwa media e-modul yang telah dikembangkan oleh peneliti dapat dikatakan layak, praktis dan efektif dijadikan sebagai referensi belajar diberbagai sekolah. Saran dari peneliti adalah semoga melalui media e-modul peserta didik lebih termotivasi untuk belajar dan media ini juga dapat bermanfaat bagi tenaga pendidik pada saat mengajar.

**Kata Kunci:** e-modul, 3d pageflip profesional

### Abstract

The aims of this study were to (1) develop e-module media using 3D Pageflip Professional on negotiation materials, (2) find out the feasibility of e-modules by material experts, linguists and media experts, (3) find out the practicality of e-modules through trials, individual, small group trials, and field trials, (4) determine the effectiveness of e-modules through the results of student evaluations. This study was developed using a 4D model consisting of four stages, namely definition, planning, development, and dissemination. Based on the results of the study, it can be concluded that the results of the validation by material experts were in the first revision 58.6%, the second revision 75% and the last revision 97%. The results of validation by linguists in the first revision were 60.7%, the second revision was 82% and the last revision was 96%. The results of the validation by media experts at the first revision were 50%, the second revision was 70% and the last revision was 93%. The results of individual trials are 50%, small group trials, 80%, and field trials 97.8%. The results of completeness obtained in the final evaluation reached 100% completeness. So, it can be concluded that the e-module media that has been developed by researchers can be said to be feasible, practical and effective as a learning reference in various schools. The suggestion from the researcher is that through the e-module media students are more motivated to learn and this media can also be useful for educators when teaching.

**Keywords:** e-modul, 3d pageflip profesional

## INTRODUCTION

Education is a learning process to develop knowledge, skills, and group habits that are passed down from generation to generation. Education is a form of embodiment of a dynamic human culture full of development. Changes or developments in education should happen following the passage of the culture of life (Harefa, 2019; Zagoto, Yarni & Dakhi, 2019). This change is an improvement in education at all levels that continues to be carried out in anticipation of future interests and the demands of modern society.

With rapid changes, the quality of education will decrease. It is due to the

development of increasingly sophisticated technological tools that cannot use properly (Dakhi et al., 2022). Students who are required to be able to learn independently by using electronic devices independently is one of the causes of the decline in student interest in learning (Giawa, Harefa & Waruwu, 2022). It's because educators cannot monitor students directly when providing learning materials, so the current state of education is very concerning.

Learning activities at this time need developments that will help educators carry out the teaching and learning process in the classroom. Such as using media as a tool to facilitate teaching staff in learning activities

(Harefa, 2021; Zaharah & Susilowati, 2020). Learning media is an intermediary to convey information or lessons to stimulate students to learn.

This media can be classified into visual media, recordings, electronic books, learning videos, etc. Through these media, students easily learn every material that is taught well. Learning media usually used in schools is print media because this learning media is easy to obtain and apply. Electronic learning media has been involved, such as e-books, but this media is used online (Dakhi et al, 2020).

The development of the current era of globalization motivates every educational institution to provide learning facilities that students can use when studying at home or school (Harefa, 2020). One solution to this problem is to apply e-module learning media. Before learning this electronic module, teachers only used print modules when teaching in class. E-module is one of the different teaching materials. E-modules are electronic books prepared to help students learn independently directly from educators, so the modules must be well-designed based on the selected learning model (Zendato, Harefa & Lase, 2022). The specialty of this e-module is that it is easy to carry everywhere because it is already available on our Android phones.

E-modules teach media combined from two or more media, such as audio, graphic text, images, animation, and video (Kurniawan et al., 2021). The form presentation of e-module media must be systematically arranged and presented in an electronic format that will access via a link to make students more interactive in accessing the association, which is equipped with the presentation of video tutorials, animations, and audio to enrich the learning experience (Lestari, Sutiarso & Sugilar, 2022).

To make the e-module media more special, you can use the 3D Pageflip Professional application to design the media better. This application will make the electronic module display more attractive with various interesting illustrations used. 3D Pageflip Professional application provides settings such as magazines, documents, etc. 3D Pageflip Professional is a type of computer software that can create animated displays to create interactive learning media for students (Anggereini, 2017).

The results of interviews conducted by researchers with Indonesian language teacher teachers show that the learning process is offline. However, with the Covid-19 outbreak, teaching and learning activities are carried out online, so the target for material achievement is still not optimal. Online learning activities make students understand the material being taught. Because the online learning system is still lacking in increasing student interest in learning, the government made a policy so that the learning process is carried out face-to-face. From this policy, teaching and learning activities are carried out directly but still follow the government's policy, namely maintaining distance and following health protocols. When online and offline learning activities are carried out, Indonesian language teachers use e-books as media for learning because all students have Android phones.

The application of learning media in electronic modules is very suitable to invite students better to understand the functions of increasingly sophisticated electronic devices. The e-module media will include material and evaluation exercises for students. In this media, the researcher will determine one of the materials, namely negotiation material, to be used as product testing material for students. The e-module media used is based on Creative Problem Solving (CPS). The creative Problem Solving (CPS) learning model is one of the learning models centered on problem-solving based on students' skills in choosing the appropriate strategy to solve the problem.

The developed e-module is accessed through the student's android phone. The application of e-modules is designed with the help of the Professional 3D Pageflip application, which will design the media to be more attractive. Students can use the developed e-module through their Android phones. Using this learning media can save costs for photocopying teaching materials and help students use Android cellphones to be more useful in the world of education.

## **METHOD**

The development model used in this study is the development of a 4D model. This development model consists of four stages: define, design, develop, and disseminate. The trial subjects of this product were students of class X-ATPH SMK Negeri 1 Gunungsitolo Alo'oa. This product trial will be carried out by

individual product testing, group testing, and student testing for class X-ATPH, totaling 21 students. The types of data obtained in this study are quantitative and qualitative data. The research instruments used in development research are validation sheets, e-module practicality questionnaires, e-module effectiveness, observations, and documentation.

## RESULTS AND DISCUSSION

### E-module Product Trial Results

#### 1. Practicality of e-Module Based on Creative Problem Solving

Obtaining the value of the practicality of the e-module product was carried out in three stages of testing: individual trials consisting of 2 students, small group trials consisting of 6 students, and field trials consisting of 21 students. These three trials were conducted in class X-ATPH with 21 students. At the time of the trial, the researcher gave the student worksheets in the form of essays and student response sheets to the e-module product after completing the learning process.

In individual trials, students get scores above the KKM to declare the product practical. In the small group trial phase, 6 students completed the test and achieved scores above the KKM. Meanwhile, at the field trial stage, 21 students scored above the KKM, so all students in the field test were completed.

Table 1. Percentage of Learning Practicality of Students at the Trial Stage

No	Trial	KKM	Score	Result	Description
1	Individual Trial	75	5	88,7	Very Clear
2	Small Group Trial	75	24	87,5	Very Clear
3	Field Trials	75	109	94,28	Very Clear

Table 2. Percentage of Practical Learning for Trial Students

No	Completeness of Students	Total	KKM
1	Completed Student	21	75
2	Completed Student	-	75
Percentage of complete learning			

#### 2. Effectiveness of e-Module Based on Creative Problem Solving

The effectiveness of a product can be obtained through student learning outcomes tests in the form of essay questions given after the learning process is complete. The results of this test are student evaluation materials after studying the material for each topic developed in the Creative Problem Solving-based e-module product. The effectiveness test was conducted to determine the effectiveness of the developed product.

The results of the effectiveness of e-modules based on Creative Problem Solving can be seen in the following table:

Table 3. Assessment of the Effectiveness of e-Modules by Students at KD 1

No	Name	Score	description
1	Agus Putra Gulo	89,4	Pass
2	Dandy F. Zendrato	88,6	Pass
3	Derita Harefa	92,4	Pass
4	Dirman J.Harefa	78,6	Pass
5	Desman Ziliwu	95,4	Pass
6	Eirene K. Zendrato	94,8	Pass
7	Excel S.Laoli	93,4	Pass
8	Fanorotodo laoli	91,2	Pass
9	Febriani Zendrato	89,6	Pass
10	Frans Siska Zega	99,2	Pass
11	Jeffri Yanto Zega	78	Pass
12	Jul Kristian Harefa	94,4	Pass
13	Mei Christie laoli	92	Pass
14	Nota Lestari Zendrato	86,2	Pass
15	Samson Zendrato	73,4	Not Pass
16	Seiman Jaya Harefa	97,2	Pass
17	Septi Ayu D. Zendrato	85,6	Pass
18	Silvester Zega	98,6	Pass
19	Soterman Laoli	93,6	Pass
20	Tri Sutra R. Harefa	77	Pass
21	Warni Harefa	98	Pass
Effectiveness Percentage		95,2%	
Effectiveness Criteria		Highly Effective	

Table 4. Assessment of the Effectiveness of e-Modules by Students at KD 2

No	Name	Score	description
1	Agus Putra Gulo	85,4	Pass
2	Dandy F. Zendrato	86,6	Pass
3	Derita Harefa	88,6	Pass
4	Desman Ziliwu	85	Pass
5	Dirman J.Harefa	89	Pass
6	Eirene K. Zendrato	88	Pass
7	Excel S.Laoli	90	Pass
8	Fanorotodo laoli	73,8	Not Pass

9	Febriani Zendrato	90	Pass
10	Frans Siska Zega	90	Pass
11	Jeffri Yanto Zega	80,4	Pass
12	Jul Kristian Harefa	87,2	Pass
13	Mei Christie laoli	90	Pass
14	Nota Lestari Zendrato	90	Pass
15	Samson Zendrato	89,6	Pass
16	Seiman Jaya Harefa	83,4	Pass
17	Septi A. D. Zendrato	88	Pass
18	Silvester Zega	86,6	Pass
19	Soterman Laoli	89,4	Pass
20	Tri Sutra R. Harefa	88,6	Pass
21	Warni Harefa	83,2	Pass
Effectiveness Percentage		95,2%%	
Effectiveness Criteria		Highly Effective	

Table 5. Assessment of the Effectiveness of e-Modules by Students at KD 3

No	Name	Score	descripti on
1	Agus Putra Gulo	84,4	Pass
2	Dandy F. Zendrato	89,6	Pass
3	Derita Harefa	83	Pass
4	Dirman J.Harefa	78,6	Pass
5	Desman Ziliwu	86,8	Pass
6	Eirene K. Zendrato	89,2	Pass
7	Excel S.Laoli	84,4	Pass
8	Fanorotodo laoli	82,8	Pass
9	Febriani Zendrato	83	Pass
10	Frans Siska Zega	77,2	Pass
11	Jeffri Yanto Zega	88	Pass
12	Jul Kristian Harefa	88,6	Pass
13	Mei Christie laoli	82,4	Pass
14	Nota L. Zendrato	82,6	Pass
15	Samson Zendrato	86,2	Pass
16	Seiman Jaya Harefa	84,2	Pass
17	Septi A. D. Zendrato	77,8	Pass
18	Silvester Zega	88,8	Pass
19	Soterman Laoli	82	Pass
20	Tri Sutra R. Harefa	69,0	Not Pass
21	Warni Harefa	87,2	Pass
Effectiveness Percentage		95,2%	
Effectiveness Criteria		Sangat Efektif	

Table 6. Assessment of the Effectiveness of e-Modules by Students at KD 4

No	Name	Score	Pass
1	Agus Putra Gulo	87	Pass
2	Dandy F. Zendrato	89	Pass
3	Derita Harefa	82	Pass
4	Dirman J.Harefa	82	Pass

5	Desman Ziliwu	91,5	Pass
6	Eirene K. Zendrato	85	Pass
7	Excel S.Laoli	97,5	Pass
8	Fanorotodo laoli	86	Pass
9	Febriani Zendrato	85	Pass
10	Frans Siska Zega	91	Pass
11	Jeffri Yanto Zega	89	Pass
12	Jul Kristian Harefa	84,5	Pass
13	Mei Christie laoli	78	Pass
14	Nota L. Zendrato	81,5	Pass
15	Samson Zendrato	83,5	Pass
16	Seiman Jaya Harefa	83	Pass
17	Septi A. D. Zendrato	83,5	Pass
18	Silvester Zega	87,5	Pass
19	Soterman Laoli	89	Pass
20	Tri Sutra R. Harefa	90,5	Pass
21	Warni Harefa	94,5	Pass
Effectiveness Percentage		100%	
Effectiveness Criteria		Highly Effective	

After obtaining the evaluation results from KD 1, KD 2, KD 3, and KD 4, the researchers carried out the final evaluation stage for students. This final evaluation stage aims to obtain students' level of completeness and incompleteness after studying the negotiation text material. This evaluation material consists of 20 multiple-choice questions that students will answer with negotiation text material for each KD. Obtaining the results of the final evaluation of students on the negotiating text material can be seen in the following table:

Table 7. Final Evaluation Results by Students

No	Name	Score	Ket
1	Agus Putra Gulo	100	Tuntas
2	Dandy F. Zendrato	95	Tuntas
3	Derita Harefa	90	Tuntas
4	Dirman J.Harefa	100	Tuntas
5	Desman Ziliwu	100	Tuntas
6	Eirene K. Zendrato	85	Tuntas
7	Excel S.Laoli	100	Tuntas
8	Fanorotodo laoli	95	Tuntas
9	Febriani Zendrato	100	Tuntas
10	Frans Siska Zega	100	Tuntas
11	Jeffri Yanto Zega	100	Tuntas
12	Jul Kristian Harefa	100	Tuntas
13	Mei Christie laoli	100	Tuntas
14	Nota L. Zendrato	100	Tuntas
15	Samson Zendrato	100	Tuntas
16	Seiman Jaya Harefa	100	Tuntas
17	Septi A. D. Zendrato	100	Tuntas
18	Silvester Zega	95	Tuntas
19	Soterman Laoli	100	Tuntas

20	Tri Sutra R. Harefa	100	Tuntas
21	Warni Harefa	100	Tuntas
Effectiveness Percentage		100%	
Effectiveness Criteria		Highly Effective	

Based on the results of the final evaluation that has been carried out on students in class X-ATPH, the e-module product is declared effective. Researchers have provided 20 multiple-choice questions related to negotiation text material from KD 1 to KD 4 as evaluation material that will determine the level of completeness of students studying negotiation text material using e-module media. After obtaining the final evaluation results, students are declared to have completed 100% of their understanding of the negotiating text material using e-modules.

### Data analysis

#### 1. Eligibility of e-Module Based on Creative Problem Solving

The development product that has been developed will be said to be feasible if it has been validated by a validator who is an expert in his field. According to the validator, if the product is in the good or very good category, it means that the product is feasible to use. Each validator has the right to give an assessment according to their assessment results. Researchers must choose a validator who can assess the product well so that the product has been validated and has higher quality. To meet the eligibility category of e-module products must be assessed by three validators, namely as follows:

##### a. Material Expert

The results of the feasibility assessment of e-module products assessed by material experts have met the very suitable category for use. They have met the criteria for the needs of students. The material expert's assessment shows that the e-module follows KI, KD, and material and is by the criteria for making e-modules. The assessment results obtained an average value reaching the appropriate category. These results can be seen in the results of the first revision reaching 58.6%, the second revision at 75%, and the third revision at 97%. The results of these percentages show that the product reaches the very feasible criteria suitable for use in the field.

##### b. Linguist

Based on the Linguist's assessment results, the product developed is considered to have met the criteria for good language use so that students can understand it. The evaluation of this e-module product was revised three times to get maximum results. The results of the percentage carried out by linguists from the first revision to the last revision have increased. In the first revision, the percentage reached 60.7%. 82% in the second and third revisions reached 96%. From the three revision stages results, it can be seen that the developed e-module product has met the very feasible criteria.

##### c. Media Expert

The evaluation of the e-module product by media experts is a step to determine the feasibility of the product being developed. Based on the feasibility results carried out by media experts, it can be said that the e-module product has met the very feasible criteria. The results of this feasibility are obtained in three stages of revision. Revision I received a score of 50%, revision II reached 70%, and revision III, the score reached 93%. Based on the assessment results by media experts, the e-module product was declared very feasible for use in the field.

#### 2. Practicality of e-Module Based on Creative Problem Solving

The practicality of e-module products can be obtained from student responses to the developed products. The results of the product's practicality were obtained in three stages of testing: individual trial, small group trial, and field trial. At the individual trial stage, the completeness of the students reached 2 people; in the small group trial, the number of students completed 6 people; at the field trial stage, the number of students completed 21 people.

Based on the trials carried out in three stages, the e-module product has met the very practical criteria to be used as research material in the field. This practical result was obtained from students' responses in class X-ATPH SMK Negeri 1 Gunungsitoli Alo'oa with a total of 21 students. From the results of these respondents, researchers can find out the practicality of the developed e-module product.

#### 3. Effectiveness of e-Module Based on Creative Problem Solving

The results of obtaining the effectiveness of e-module products are obtained by giving

test questions to students as a result of evaluation after following the learning process. The provision of test questions in the form of essays is carried out to increase students' understanding of the material that has been studied and to increase the effectiveness of the products developed. The results obtained by students from the evaluation questions can determine the quality and effectiveness of the e-module product. The results of the analysis of the product's effectiveness by students in class X-ATPH SMK Negeri 1 Gunungsitoli Alo'oa showed that the mastery of learning students in negotiating material 21 people who achieved scores above the KKM. Based on the calculation of the student's scores, they obtained a completeness score of 88.82% with very effective criteria.

## CONCLUSION

Based on the results of research and development that have been carried out at SMK Negeri 1 Gunungsitoli Alo'oa by using the research type of e-Module Development Using Professional 3D Pageflip on Negotiation Materials in Class XSMK Negeri 1 Gunungsitoli Alo'oa in the 2021/2022 Academic Year, it can be concluded as follows:

1. Development of e-modules using Professional 3D Pageflip on negotiation materials in class X SMK Negeri 1 Gunungsitoli Alo'oa was developed through a 4D model consisting of four stages: define, design, develop, and disseminate. (spread). However, based on the results of the considerations when conducting the research design, the researcher has limited it to three stages due to the very limited time, so this research was carried out until the development stage.
2. Creative Problem Solving-based e-module on negotiation materials have met the feasible category for use. This feasibility result is validated by material experts, linguists, and media experts. The validation results obtained by material experts reached 97% with very decent criteria, validation by linguists scored 96% with very feasible criteria, and validation by media experts obtained a 93% assessment with very feasible criteria. The e-module product has been declared feasible for use in the field from some of the validation results.
3. Creative Problem Solving-based e-modules applied in class X SMK Negeri 1

Gunungsitoli Alo'oa were declared practical. The practical results have been carried out using product trials three times, namely individual trials, small group trials, and field trials. This trial was conducted to obtain the practical value of the product being developed. Individual e-module product trials were carried out on 2 students. They obtained a practicality score of 50% with less practical criteria. Small group product trials were carried out on 6 students, with an 80% score obtained with practical criteria. In contrast, in field trials of 21 people, students get a score of 98% with very practical criteria. So from the results of field trials, it can be seen that the e-module product developed is very practical to use.

4. Creative Problem Solving-based e-module that has been developed has met the value of being very effective. The value of the effectiveness of the e-module product is obtained from the final results of student learning evaluations carried out after participating in the learning process. The acquisition of number of students who completed reached 100% with the KKM. The e-module product developed was declared very effective from these results.

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