



Developing E-Module for English Language Teaching (R&D Study at Tenth Grade Students of SMAN 1 Donggo)

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Abstract

This study was categorized as Research and Development (R&D). Its purposes to develop an e-module for ELT and to see to what extent is the use of e-module effective in improving English ability of tenth grade students. The output of this research was an e-module with the topic "Event Advertisement". It was developed by referring to the judgments or suggestions of three material experts of ELT and a media expert. It has been tested at tenth grade of SMAN 1 Donggo in 2020/2021 Academic Year. There was a class of students taken as the sample in conducting the field trial of e-module. The Students were given pre-test before using e-module in ELT and post-test after using e-module after using e-module. The results show that there was a significant improvement of students mean score from 82.66 in pre-test became 87.94 in post-test. While, the researcher calculated the score of students and described the results based on the value of t-test as well as the teaching and learning process. The findings show that in confidence level of 0.05 (95%) and in the degree of freedom (df) 32, the value of t-test (64.176) is higher than the value of t-table (2.036). It represents that e-module brings about significant effect toward students English ability.

Keywords: *Research; Developing; E-Module; ELT*

Introduction

The development of science and technology increasingly encourage the renewal efforts in utilizing the technological results in the learning process. Besides being able to use available tools, the teachers also are required to be able to develop their skills in making their own learning media that will be used in learning process.

As a result of rapid development of science and technology, the emergence and development of multimedia technology and its application to teaching, featuring audio, visual, animation effects come into full play in English class teaching and set a favorable platform for reform and exploration on English teaching model in the new era. It is proved that multimedia technology plays a positive role in promoting activities and initiatives of students and teaching effects in English class.

The new era assigns new challenges and duties on the modern teacher. The tradition of English teaching has been drastically changed with the remarkable entry of technology. Technology provides so

many options as making teaching interesting and also making teaching more productive in terms of improvements.

In order to facilitate the achievement of the implementation of the education objectives in schools, there needs to be an intermediary media which can be used to deliver the messages, to stimulate the thoughts, the feelings, and the willingness of students.

Curriculum (K-13) aims to form the character of students as personal learners who are able to explore themselves with the various learning resources to answer their curiosity. In this condition the teachers are expected to position themselves as the facilitators who functions to help students in the learning process. Along with the development of technology and information that can be applied in the form of learning activities, many ways can be used to change the presentation of teaching materials into electronic or digital formats, the use of electronic modules (e-modules) is one of the choices that can be chosen by the teachers.

Based on the recent changes of the 2006 curriculum to the 2013 curriculum (K-13), English language teaching in Indonesia has undergone several changes both in terms of the competencies which are taught and in terms of the time allocations.

Meanwhile, in terms of the allocation of time for English subject for Senior High School (SMA), it actually has been changed from 4 hours a week to 2 hours a week. This actually causes more difficulty for students to acquire in English.

Besides that, at this time the world is being hit by the coronavirus disease 2019 (COVID-19) which has caused all activities that make physical contact have been limited, including teaching and learning in the classroom. All schools in Indonesia conduct online learning which requires teachers to prepare material in electronic form that can be easily accessed by students.

Based on the description above, the researcher will try to solve those problems by developing an e-module. It is an electronic module that allows students to study in their homes by using their mobile phones or portable computers.

This e-module is chosen because the development of e-module can be used as one of the techniques to solve complex learning problems and also develop education and learning products. To know the effects of implementing the e-module, the researcher will conduct a research entitled "Developing e-Module for English Language Teaching".

Based on the description of the problems above, three research questions are rised in this study, they are as follow:

1. What are the students' needs for material development in e-module of English Language Teaching for ten grade students?
2. To what extant is the use of e-module effective in improving English ability of ten grade students?

Research Method

Type of Research

This study is categorized as a research and development or Research and Development (R & D). According to Sugiyono (2012: 407) research and development is a research method used to produce certain products, and test the effectiveness of these products. Based on U.S. Department of Education and the National Science Foundation (2013:47) research and development in education is aimed to develop new or improved interventions or strategies to achieve well-specified learning goals or objectives,

including making refinements on the basis of smallscale testing.

Typically this research involves four components: (1) Development of a solution (for example, an instructional approach; design and learning objects, such as museum exhibits or media; or education policy) based on a well-specified theory of action appropriate to a well-defined end user; (2) Creation of measures to assess the implementation of the solution(s); (3) Collection of data on the feasibility of implementing the solution(s) in typical delivery settings by intended users; and (4) Conducting a pilot study to examine the promise of generating the intended outcomes.. So research and development in this study is a method for producing certain products or perfecting existing products and testing the effectiveness of these products.

This research and development of e-module is intended to improve students' ability in ELT. The level of feasibility of learning resources in the form of e-module by focussing on increasing students' English ability is known through validation by experts in material development, experts in media development and also by trial to the users or students.

Based on the type of the research as describe above, this study will focus on how to develop an e-module and also how to apply it in English Language Teaching (ELT). So, this study will follow the ADDIE development model, in which the development model follows five stages, namely Analysis, Design, Development, Implementation and Evaluation (Dikbud: 2018).

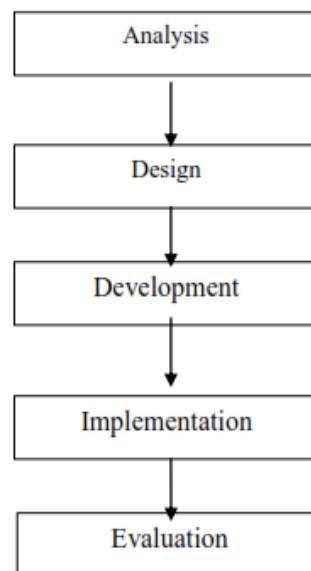


Figure 1: The research procedure of ADDIE model

The Data Collection of Research

The data collecting in this study were:

1. The data about students' necessities, lacks and wants.
2. The data about revision of several achievement indicators in lesson plan and syllabus.
Both of data above are taken by observation and distribution questionnaire to the students and also from the suggestions of three material experts (English teachers).
3. Data on learning aspects include the completeness and consistency of the components of learning, conformity with students characteristics, and the learning approach used. The data is obtained based on suggestions from 3 English teachers.

4. Data on media aspects include display, layout, navigation, animation, conformity of shapes and quantities of letters, images, sounds and colors, obtained from media experts, namely the national e-module instructor.
5. Data about the using of e-module is obtained from e-module users, namely students

This research was carried out by means of; 1) observation and questionnaire distribution and pre-test conducted by researchers in class X-MIA 1 and X-MIA 2, 2) analysis of subject matter that involved 3 English language teachers as experts, 3) validation of e-module carried out by material experts and media experts, 4) implementation of post-test and user opinion collection were conducted on students of class X-MIA 2. In obtaining users judgments, researcher distributed questionnaires incorporated in post-test questions and also through interview with representatives of 10 students from class X-MIA 2.

Findings and Discussion

Findings

This section explains the research data and the results of hypothesis testing. The results were collected from the preliminary research which was aimed to find out the students' needs in developing an e-module for ELT. Another data was collected by conducting an e-module trial in a class, namely X MIA 2. This trial was aimed to answer the research questions or to test the hypothesis proposed in this study.

Stages of e-Module Needs Analysis

Based on the results of the preliminary research that conducted by researcher by distributing questionnaires to a classes of students in SMAN 1 Donggo. The researcher found several things which are needed by students in learning English. Those will be taken into consideration in developing e-modules.

Because e-module uses mobile phones in its learning activities, the first thing that the researcher do is to find out the students ownership of mobile phones. Those are used in applying the results of the e-module product development. From 66 students who answered the questionnaire, the results showed that there were 64 students had their own mobile phones, while 2 students had no mobile phones, but they used their mother's mobile phone. These allow the researcher to continue his development research. Besides that, the researcher also needs to know about the students' necessities, lacks and wants. These are needed to be able to accommodate the students' needs in providing the appropriate subject matter in the e-module. The subject matters also according to what the targets of the school curriculum or 2013 curriculum.

The others results of the study show that the activities often carried out by students at home, they always use their mobile phones for playing games, watching youtube, listening to music and accessing subject matter or assignments given by the teacher. Students also prefer to look for subject matter through the internet and ask their friends instead of looking at the school library. In accessing the internet, they are mostly done by using their smart phones.

In finding the students' needs in ELT, the researcher provides several questions in questionnaire. Based on the students' answers, there are some students' necessities, lacks and wants found by him. Those can be seen in the following table.

Table 1. The Result of Students' Needs Analysis

No.	Students' Needs Analysis Results	
1	Students' necessities	<ul style="list-style-type: none"> - The text should be short and simple - The subject matters must relate to school needs - The subject matters must relate to our own area - The subject matters must based on the needs of today's high school

		students/millennial studens - The subject matter is also available that can be accessed via mobile phones - The subject matter should be provided in a learning video
2	Students' lacks	- Hard to memorize words - Difficult to pronounce words correctly - Difficult to understand the native speakers' speaking - Lack of understanding on how to arrange words into sentences - Not confident to practice speaking with friends and teachers - Difficult to understand the contents of the text - Difficulty when given the task to write a text - Difficult to distinguish the use of verbs
3	Students' wants	- Want to be more fluent in English - Want to be able to speak with native speakers - Want to memorize a lot of basic words - Can pronounce English correctly - Can understand the meaning of the text - Want to have activities to tell stories in English 15 minutes before the learning begins. - The presentation of English material using easy and simple language - Availability of many English dictionaries at school - Want to understand how to write sentences correctly - Want to understand the reading text in English - Lessons must be interspersed with musics - Relaxing and fun learning activities

Based on the analysis of students' necessities, lacks and wants, it can be concluded that the material to be presented in the e-module should be short and simple, use the communicative language, equipped with a dictionary, video, recorded conversations and music in English as a reference for students in practicing their pronunciation the English words correctly. Therefore, the next steps are taken by the researcher is analyzing syllabus and lesson plan then adjusting them to what students needs based on the research results in students' needs analysis above.

In analyzing the syllabus and lesson plan, especially on the achievement indicators, researcher used the framework in Bloom's theory. The results of the analysis show there were some errors in selecting indicators of achievement in SK / KD (Standard Comptence/Base Competence) in syllabus and previous lesson plan. There were some errors in choosing indicators based on the stages of students thinking, C3 precedes C2 or A2 preceding A1 and P3 preceding P2. The indicators sequence should start from the stage of thinking the easier ones to the difficult ones. It can be seen in the appendixes.

Stages E-module of Design

In Carrying out the steps of design the learning material as a reference in developing an e-module (e-learning material), the researcher did the following activities:

1. Analyzed the objectives and characteristics of English subjects for tenth grade students.
2. Analyzed the learning resources (constraints)
3. Analyzed of the characteristics of senior high school students
4. Set the learning goals and content / learning material
5. Established the strategies for organizing learning material
6. Established the strategies for delivering learning material
7. Established the learning management strategies
8. Developed a form of measuring the learning outcomes.

Those eight steps are described in the diagram as follows:

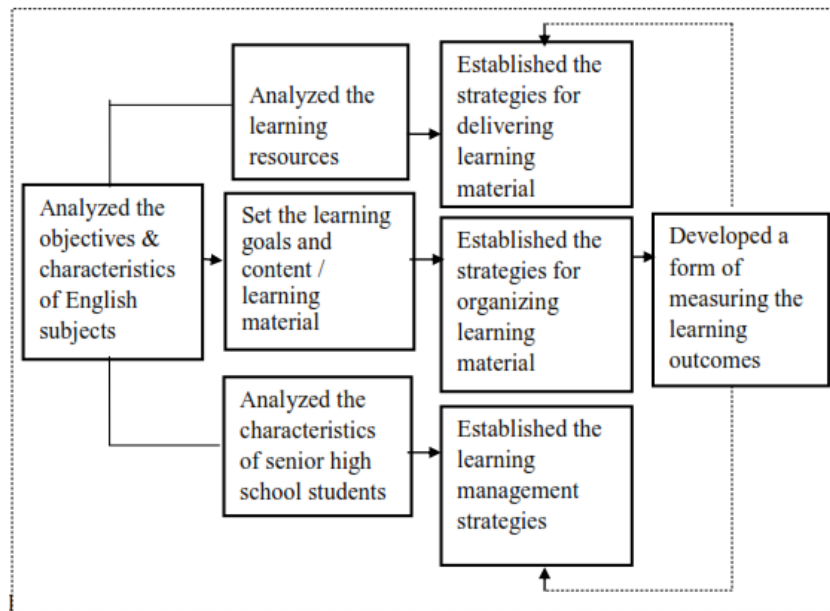


Figure 2. Diagram of learning planning and development

The activities above have produced an e-module (e-learning material) for ELT in Senior High School with the topic "Event Advertisement". Before the e-module manuscripts were submitted to be validated by material experts and media experts, the manuscripts were first reviewed by the researcher. The judgments from the material experts and media experts were used as a reference in revising the manuscript that would be developed into an e-module prototype.

Stages of Development and Validation of e-Module Design

The learning material that has been developed into a revised e-module word manuscript would be developed into an e-module *prototype* with the topics "Event Advertisement". The steps in developing e-module prototypes can be seen as follows:

1. Providing e-module word manuscript
2. Install the software "SigilPortable 0.9.10" in a computer
3. Choose a e-module template
4. Copy the word manuscript into e-module template
5. Insert picture, Video, Voice recorded or music.
6. Change the operational language from Bahasa into English
7. Change the options positions based on the researcher's wants.
8. Save the e-module product into a specific file.

Material Expert Validation

The validation results of the three material experts can be seen as follows:

1. Every text must be equipped with the vocabulary focus and its pronunciation recording
2. The language use must be simple
3. The e-module must be equipped with grammar focus
4. Prepare an example in every task.
5. Each task must be supplemented with the explanation

6. In other part must be prepared the explanation of each task
7. Video or music must be inserted.
8. Each task or exercise must be equipped with clearer instructions.

Based on several judgments from material experts above, than the e-module prototype material was revised. The revision was referred to the experts judgments or suggestions (see appendix).

The e-module prototype that has been revised based on the experts judgments before was validated again by material and media experts. The validation results can be seen in the table below.

Table 2: The Mean Score Recapitulation of Validation Results by Material Experts

No	Achieving Score Aspect	Mean of Experts' Score
A	Learning Aspects	
1	The use of e-Module is able to Achieve the Basic Competencies	4
2	The use of e-Module is matching with the learning material	4
3	The use of e-Module is able to respond to the independent learning of students	4
4	The use of e-modul matching with students' interests, needs and conditions	3
B	Communication Visual Aspects	
1	The language used can motivate the students in understanding the learning material	4
2	The display of design is simple and attractive	4
3	The texts can be read clearly	4
4	Equipped with multimedia elements (video / text / table / audio)	3
	Total	30

The score of achievement feasibility can be done by formula

$$\text{Score} = \frac{\text{Achieving score}}{\text{Maximum score}} \times 100$$

If the score is ≥ 80 , so the material in e-module is effective to use in ELT.

(Kemendikdud, 2018)

From the table above can be counted as follows:

$$\begin{aligned} \text{Score} &= \frac{30}{32} \times 100 \\ &= 94 \end{aligned}$$

So, the score is 94. It is more than 80 ($X > 80$), it means that the material in e-module can be used in ELT.

Media Expert Validation

After the three material experts validated the e-module manuscript in the form of a word and the validation results showed an average value of more than 80, the step taken by the researcher was to develop the e-module into a portable sigil application. The results of the development are then submitted to media experts to be validated. The results of media expert validation can be seen in the table below.

Table 3: The Mean Score Recapitulation of Validation Results by Media Expert

No	Achieving Score Aspect	Mean of Experts' Score
A	Learning Aspects	
1	The use of e-Module is able to Achieve the Basic Competencies	4
2	The use of e-Module is matching with the learning material	4
3	The use of e-Module is able to respond to the independent learning of students	4
4	The use of e-modul matching with students' interests, needs and conditions	3
B	Communication Visual Aspects	
5	The language used can motivate the students in understanding the learning material	4
6	The display of design is simple and attractive	4
7	The texts can be read clearly	4
8	Equipped with multimedia elements (video / text / table / audio)	3
C	Software Designing Aspects	
9	e-Module is smooth and reliable when it is used	4
10	e-Module is easy to use	3
11	e-Module navigation is easy and consistent on every display	4
	Total Score	41

From the table above, the researcher counted it by using the following formula.

$$\text{Score} = \frac{\text{Achieving score}}{\text{Maximum score}} \times 100$$

If the score is ≥ 80 , so the e-module is effective to use in ELT.

$$\begin{aligned} \text{Score} &= \frac{41}{44} \times 100 \\ &= 93 \end{aligned}$$

From the result above can be concluded that the score is 93 categorized as 'Very Good'. Therefore, it is more than 80. It means that the e-module developed is effective to use in ELT. So, the next step was initial field test.

Stages of E-module Trial

Initial Field Tests

The initial field trial for the use of e-module was carried out limited to ten students of the tenth grade of SMAN 1 Donggo. They were from the class X MIA 2. This trial was carried out after the researcher did the pretest to all students in class X MIA 2. It was done by the researcher after teaching

English with the topic 'Event Advertisement' in twice meetings. After doing the pretest related to the 'Advertisement Event' topic, the researcher analyzed the results. From the results of the pretest, it shows that the mean score of 32 students in the tenth grade of SMAN 1 Donggo was 82.66. The researcher chose only ten students in initial field trial in order to demonstrate easily about the use of e-module. He did not do the pre-test and post-test separately for them.

The researcher shared the e-module file to students and explained how to use it and also installed an ebook-reader application to the students' smart phones. The ebook-reader chosen by researcher was 'lithium'. It was chosen because it just need only 4.6 MB of free space on smart phone memory. After the ten students understand about how to use or operate the e-module, the researcher shared an e-module file to a class of the students and also explained how to use it by simulating the use of it in front of the class. The material in e-module was learned independently by students twice meeting in their homes. While in the school, they were taught with the different material of the same topic. In the last meeting, the researcher conducted the post-test. The result of it indicated the students mean score increased significantly. It can be seen in the statistical analysis in the next section (4.1.5) of this study.

Main Field Tests

The main field trial for the use of e-module was carried out to a class of the tenth grade students of SMAN 1 Donggo. It was the class X MIA 2. This trial was carried out after the researcher did the pretest. It was done by the researcher after teaching English with the topic 'Event Advertisement' in twice meetings. After doing the pretest related to that topic, the researcher analyzed the results. From the results of the pretest, it shows that the mean score of 32 students in the tenth grade of SMAN 1 Donggo was 83.45. After that, the researcher shared the e-module file to students and explained how to use it and also installed an ebook-reader application to the students' smart phones. The ebook-reader chosen by researcher was 'lithium'. It was chosen because it just need only 4.6 MB of free space on smart phone memory.

The researcher shared an e-module file to the students and also explained how to use it by simulating the use of it in front of the class. The material in e-module was learned independently by students two weeks in their homes. The students had two weeks school holidays because of the national examination of the twelfth grade. In the first meeting after school holidays, the researcher conducted the post-test. The result of it indicated the students mean score increased significantly. It can be seen in the statistical analysis in the next section (4.1.5) of this study.

Statistical Data Analysis

This section is aimed to know wheter the significant effect of using e-module in improving students English ability. The pre-test and post-test result were measured by using t-test formula or SPSS 16.0.

The Learning Results of Treatment Class Before Using E-module in ELT at Initial Field Test

Table 4: The Learning Results of Trial Class before Using e-Module (*pre-test*)

N	Valid	32
	Missing	0
Mean		82.72
Median		82.50
Mode		79
Std. Deviation		4.639
Minimum		75
Maximum		92

The table above shows that the calculation results by using SPSS 16.00 on the data before treatment (pre-test) in the treatment class obtained a valid number of 32 samples, the mean score = 82.72, the middle value = 82.50, the standard deviation = 4.639, the minimum value = 75 and the maximum value = 92.

The frequency distribution of the treatment class pre-test score can be seen to the following table:

Table 5: The Frequency Distribution of the Treatment Class Before Using E-module (pre-test)

No	Interval class	Frequency	Relative Frequency (%)
1	75-77	3	9.375
2	78-80	9	28.125
3	81-83	7	21.875
4	84-86	7	21.875
5	87-89	2	6.25
6	90-92	4	12.5
	Total	32	100%

Based on the pre-test frequency distribution table, the treatment class can be illustrated in the histogram below:

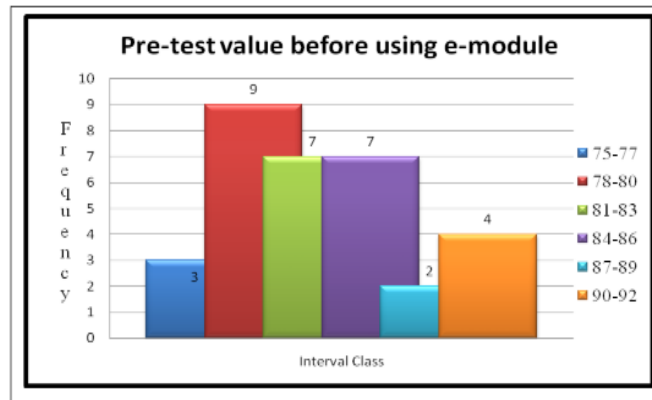


Chart 1. Frequency distribution of Student Learning Results in the Treatment Class before Using e-module (pre test)

Based on the table and histogram above, the majority of the pre-test frequency of the treatment class students was mostly gained at 78-80 interval, there were 9 students or (28.125%) students.

The Learning Results of Treatment Class After Using E-module in ELT

Table 6: The Learning Results of Treatment Class After Using e-Module (*post-test*)

N	Valid	32
	Missing	0
	Mean	87.94
	Media	88
	Mode	88
	Std. Deviation	3.162
	Minimum	81
	Maximum	96

The table above shows us that the calculation results by using SPSS 16.00 on the data after treatment (post-test) in the treatment class got a valid number of 32 samples, the mean score = 87.94, the median = 88, the standard deviation = 3.162, the minimum value = 81 and the maximum value = 96.

The frequency distribution of the treatment class post-test score can be seen to the following table:

Table 7. The Frequency Distribution of the Treatment Class After Using E-module (post-test)

No	Interval class	Frequency	Relative Frequency (%)
1	81-83	2	6.25
2	84-86	8	25
3	87-89	15	46.875
4	90-92	5	15.625
5	93-95	1	3.125
6	96-98	1	3.125
	Total	32	100%

The frequency distribution table of the treatment class after using e-module (post-test) can be illustrated in the histogram below.

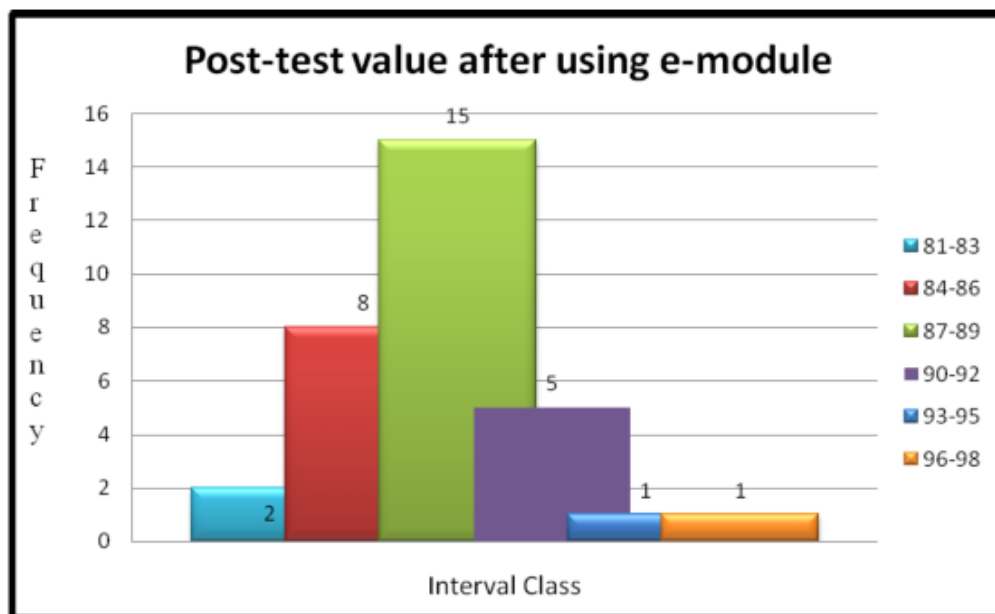


Chart 2. Frequency Distribution of Student Learning Results in the Treatment Class After Using E-module (post-test)

Based on the table and histogram above, the majority of the post-test frequency of the treatment class students was mostly gained at 87-89 interval, there were 15 students or (46.875%) students.

The t-test of Pre-Test and Post-Test of Trial Class

The t-test *pre-test* and *post-test* of treatment class aimed to find out whether there is the significant improvement of the students mean score after using e-module in ELT. The conclusion of the research is significant if the $t_{hitung} > t_{tabel}$ at the level of significance 5% and the value of $p < 0.05$. The summary of the t-test of *pre-test* and *post-test* of treatment class can be seen at the following table:

Tabel 8: The Summary of Paired t-test *Pre-Test* with *Post-Test* at *Treatment Class*

Class	Mean	t_hitung	t_tabel	P
Pre-test	82.66	64.176	2.036	0.000
Post-test	87.88			

Based on the table above, it was gained the mean value of *pre-test* at experimental class is 82.66 and the mean value of *post-test* was 87.88. So that, there is a significant increase for 5.22. The value of $t_{\text{hitung}} > t_{\text{tabel}}$ at the level of significance 5% ($64.176 > 2.036$) and it has the value of $p < 0.05$. It means that there is significant improvement of the students learning results by using e-module. So, *H₀* of this study is rejected, while the *H_a* is accepted.

Discussion

This part was aimed to describe the results of this study as has been explained in the findings section before. It would be linked the researcher's findings with the other researchers' findings and also with theories from several previous researchers.

Data on Preliminary Research

The preliminary research data were collected by distributed questionnaire to a class of students. They were from tenth grade of SMAN 1 Donggo, namely class X MIA 2. The preliminary research data also were taken from three English teachers in SMAN 1 Donggo as material experts and also from media expert who came from SMAN 1 Madapangga.

The findings show that the tenth grade students of SMAN 1 Donggo tended to find out the lesson material in internet rather than in school library. It is supported by Maryono and Istiana (2007: 34) that the use of technology, especially computers and the internet have many benefits. Students can get learning materials through an electronic library (e-library) or electronic book (e-book) to get library collections in the form of books, modules, journals, magazines or newspapers. The presence of the internet also can be used as e-learning, the material can be obtained through computers at home that are connected to the internet or through internet cafes that provide internet access services.

In order to provide the suitable material in e-module, the researcher also tried to investigate the students' needs for ELT material development. The results shown there were some students' necessities, lacks and wants. The most students' necessities such as the material should be equipped with audio, video and animation and also can be accessed easily by the students by using their smart phones.

This result was supported by Johari et.al (2014:9), they argued that teaching aids or learning media have many variants, audio (sound), images silence (visual), moving images (video), animation, props (trainers) or artificial objects (mockups). Those are helpful for the students in understanding the lesson materials, including English. On the other hands, the students have several gaps or lacks in studying English. Some of them such as hard to memorize words, difficult to pronounce words correctly, difficult to understand the native speakers' speaking, lack of understanding on how to arrange words into sentences, did not have self confident to practice speaking with friends and teachers, difficult to understand the contents of the text, difficulty to write an English text and also difficult to distinguish the use of verbs. Those lacks above, researcher categorized into lacks of competence and self confident. Those are the same as described by Munawaroh that many of students felt that they were not confident to speak English because in 4 competence English lesson such as listening, speaking, reading and writing, the students assume that speaking skill is the most difficult to learn. The students' reason is that it was not their mother language or daily language activity of students. In pronunciation sometimes they were not clear and hard (2017:7). Especially in Writing skill, Toh and Hocking (2010:56) stated that "the impression that writing in English is simple extends even to simplicity in the use of vocabulary and the

lack of complexity in sentence structure and idiom”.

In this study, the researcher also found several students' wants such as want to be more fluent in English, want to be able to speak with native speakers, want to memorize a lot of basic words, can pronounce English correctly, can understand the meaning of the text, want to have activities to tell stories in English 15 minutes before the learning begins, the presentation of English material using easy and simple language, availability of many English dictionaries at school, want to understand how to write sentences correctly, want to understand the reading text in English, lessons must be interspersed with musics, and also the want to have relaxing and fun learning activities. Therefore, in order to understand the language, vocabulary is crucial to be mastered by the learner. Vocabulary mastery is needed to express our ideas and to be able to understand other people's sayings (Alqahtani, 2015:26).

In preparing the subject matter according to the necessities and wants of students and in order to solve lacks which were found in students, the researcher developed the subject matter in e-module by accommodating several necessities and wants of students according to the content of the subject matter with the topic "Event Advertisement ". The lesson material that has been developed was validated by 3 experts who were senior English language teachers at SMAN 1 Donggo, they have been teachers for more than 10 years.

Based on the data validation of the experts, the results of this study show that the e-module development for ELT at grade tenth of Senior High School can be categorized as very good. This is evidenced from several supports from material experts and media experts. The various comments or judgments were given, including that the subject matter developed in the e-module was enough to help students study independently at home as supplementary lessons related to subject matter that they have learned in their school. Students feel helped to get used to learning material and work on the questions in electronic form because on the national final exam students will be tested online.

Other experts said that e-module material developed was very relevant to the needs of students nowadays. This media is very good for bringing the students to be able to adapt their English ability with the 4.0 technological developments now. Education 4.0 in EFS class played an important role in scaffolding the students' speaking skill in this 21st century of learning (Anggraeni, 2018:93). There are three ways exposed to promote Education 4.0 such as teaching method, assignments and rule of teacher/lecturer and students (Anggraeni, 2018:93-95). Hence, the use of e-module in ELT is one way in promoting education 4.0.

Although it still needs to be improved by adding a clear explanation. The experts also said that this e-module development is very suitable for senior high school students so that they can improve their English ability. Therefore, the students feel that the e-module developed as supplementary lesson for ELT is very helpful for them to understand the English lesson. So that in the future it needed to be disseminated to other schools.

Data on E-module Development Process

E-module development process was the main activity of this study. It spent two weeks time to finish that process. Based on the suggestion of media expert, the researcher developed e-module in a form of “ePub” by using an application “SigilPortable 0.9.10”. The applications used to develop e-Modules with ePub format include iBooks Author application, Lucipress application, Scrivener application, Pressbooks application, Ultimate eBook Creator application, Caliber application, eBooks Compiler application, CreateSpace application, Sigil application (Kemendikbud, 2018:14). From those ePub applications stated above, the researcher chose “SigilPortable 0.9.10” because it was simple and easy to use or operate. Sigil is an editor software for ePub that is open source and easy to operate. (Kemendikbud, 2018:14).

In developing e-module, the researcher referred to the media expert suggestions or judgments. One of the steps was suggested by him namely by developing the word module file and copying it into e-module. Those steps are: providing e-module word manuscript; install the software “SigilPortable 0.9.10” in a computer; choose a e-module template; copy the word manuscript into e-module template; insert picture, Video, Voice recorded or music; change the operational language from Bahasa into English; change the options positions based on the researcher’s wants and save the e-module product into a specific file.

In order to the e-module is legible, It is important to install the ePub reader application on a smart phone or laptop. In this study the researcher suggested to use ‘lithium’ applications that can be downloaded free on the play store and only requires 4.5MB of space.

Data on E-module Field Trial

In this e-module field trial, the researcher did two field trial such as initial field trial and main field trial. The initial field trial limited to 10 students. It aimed to know whether the students can use the e-module for ELT in their smart phones. While, the main field trial was done to a class of students. It was class X MIA 2 that consists of 32 students. The main field trial proposed to investigate whether the students English ability improve significantly after using e-module in their ELT. So, in this study the researcher used pre-test and post-test.

The results of statistical analysis shows that there were the significant effect of using e-module in ELT. It was proven by comparing the results of the students score before and after using e-module. It can be seen in table below.

Tabel 9: The Comparing of the Students Score Before and After Using E-module in ELT

No	Interval Class	Frequency		Mean		Note
		Before	After	Before	After	
1	75-77	3	0	82.66	87.94	Both frequency and mean improved significantly
2	78-80	9	0			
3	81-83	7	2			
4	84-86	7	8			
5	87-89	2	15			
6	90-92	4	5			
7	93-95	0	1			
8	96-98	0	1			

Based on the data from the table above, it can be concluded that the students’ mean score of English increased from 82.66 before using the e-module to 87.94 after using the e-module. Besides that, the frequencies of students who get score in the intervals 75-77 and 78-80 are 3 people and 9 at the pretest became zero at the post test. Those whose score in intervals 81-83 and 84-86 at the pretest were each 7 students become 2 and 8 students at the posttest. The amazing result is the increasing number of students who get score in the interval 87-89 which in the pretest only 2 students became 15 students in the posttest. Whereas in the intervals 90-92, 93-95 and 96-98 there were 4 and zero students in the pretest increased to 5 students at intervals 90-92 and each 1 student in the interval 93-96 and 96-98. This shows that there was a significant increase in students’ mean scores after using the e-module. Therefore, this study was declared successful in improving students’ abilities in learning English. The e-module is one of media used by the teachers and students for e-learning. With the help of computer and Internet, E-learning brings the changes of pedagogical strategies and ultimately improves the efficiency of teaching and learning.

If we insist on emphasizing grammar and vocabulary, then students are only good at passing exams, and cannot master a language. If we do not change, the new generation will still be not satisfied with school education in the next 30 years. Language ability is a kind of mental skill, which needs the right pedagogical strategies and training methods. E-learning will liberate the heavy labor of teachers', but also enable students to easily master English (Cai, 2012:846).

Therefore, the use of e-module as a supplementary lesson material was very useful for the students to master the English easily. It was especially on the four macro skills such as listening, speaking, reading and writing.

Conclusion

This research used ADDIE model, namely: Analysis, Design, Development, Implementation and Evaluation. It was conducted at tenth grade students of SMAN 1 Donggo in academic year 2020/2021. This research has found several students' needs such as necessities, lacks and wants. Those were used to develop the lesson material for ELT in form e-module. By referring to the judgments or suggestions of three material experts and a media expert, an output of this R & D in the form of an e-module with the topic "Event Advertisement" was developed. From the results of e-module field trial can be concluded that the use of e-module for ELT in tenth grade students of SMAN 1 Donggo is effective in improving students' English ability especially on four macro skills of English such as listening, speaking, reading and speaking. It can be seen from the results of the pre-test and post-test. There was a significant improvement of students mean score from 82.66 in pre-test or before using e-module to 87.94 in post-test or after using e-module in ELT.

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