Developing Electronic Module Assisted by Professional Flip PDF Application in *Kepewaraan* Course

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Abstract

This study aims to 1) analyze the characteristics of the e-module in the Kepewaraan course at the Universitas Pendidikan Ganesha and 2) analyze the quality of the e- in the Kepewaraan course at the Universitas Pendidikan Ganesha. This study applied the ADDIE model, namely analysis, design, development, implementation, and evaluation. The subjects of the study were; 1) a learning content expert, media expert, learning design expert, and language expert; 2) three students in the fifth semester, and 3) six people in small groups. Data collection methods were observation, interviews, and questionnaires. The research results show that; 1) the characteristics of this e-module have been developed through several stages, namely analysis, design, development, implementation, and evaluation; 2) the score from content experts is categorized into good qualifications (96.47%), the score of learning design experts is categorized into very good qualifications (93.33%), the score of learning media experts is categorized into very good qualifications (97.5 %), the score of individual trials is classified into very good qualifications (95.53%), and the score of small group trials is categorized into very good qualifications (95.53%). Based on the results of the experts, it can be concluded that the e-module in the Kepewaraan course is feasible to apply.

Keywords: E-Module, Flip Pdf Professional, Kepewaraan

Introduction

Module is a book written with the aim that students can learn independently without teachers' direction or guidance. It shows that the module can be used for learning even without the presence of teachers. In addition, teachers are also required to have the ability to develop their own teaching materials, especially modules aiming at (1) managing learning based on student characteristics and learning conditions; (2) determining basic competency to be achieved by students; (3) using learning tools effectively based on time allocation, methods/strategies, and learning media and all available facilities; and (4) fulfilling the demands of professionalism and credibility of a lecturer in improving the abilities. Purwanto

(2007: 8) explains that the purpose of preparing the module is to achieve the competencies. Furthermore, Surya Dharma (2008: 5) states that the purpose of writing modules is to (1) clarify and simplify the presentation of messages so that they are not too verbal; (2) overcome the limitations of time, space, and sensory power; (3) develop the ability to interact directly with the environment and other learning resources allowing students to learn independently based on their abilities and interests; and (4) enable students to measure or evaluate their own learning outcomes.

Kepewaraan course is one of the new courses in the Indonesian Language and Literature Education Study Program, Department of Language, Indonesian and Regional Literature, Faculty of Languages and Arts, Universitas Pendidikan Ganesha. This course is offered in the odd semesters of 2021. Apart from being attended by 50 students in the fifth semester, the course is also offered as an elective course for the independent learning curriculum. It means that the course can be followed by students throughout Indonesia. Based on the real situation, the supporting lecturers have not yet developed qualified learning modules for the *Kepewaraan* course and met the requirements of a good module. Learning sources are only in the form of articles and several *ebooks* about public speaking. Moreover, during a pandemic and remote learning require students to have modules for effective learning. The expected module will be made in the form of digital/electronic modules.

An electronic module is a form of independent learning that is arranged systematically within the electronic format including audio, animation, and navigation (Sugianto et al., 2013). Electronic modules (e-modules) also cover links equipped with animations and moving images in order to create a new and meaningful learning experience (Hafsah et al., 2016; Serevina et al., 2018). In addition, Jonias (2014) states that this electronic module also displays clear images. Besides, learning videos can be also inserted and formative tests are equipped with automatic feedback. It helps students to find out the results of the evaluation (Zulkarnain et al., 2015). However, e-modules also have another point of view, sometimes the presented material is incomplete. The presented visual images are also less attractive, and the listed links cannot be accessed (Suarsana & Mahayukti, 2013). E-module learning has several characteristics, namely 1) *self-instructional* covers only a particular learning material so that students really focus on the material being taught; 2) s*elf-contained* covers all the material components listed in the module; 3) *stand-alone* means that the module can be used without supporting tools; 4) *adaptive* covers student's characteristics; 5) *user-friendly* means that it matches the user (Fausih & T, 2015). In planning the use of the e-module, it must be validated by experts based on their expertise. The experts are given the opportunity to provide an assessment so that the electronic module is suitable for the teaching and learning process (Imansari & Suryantiningsih, 2017; Irwansyah et al., 2017; Fonda & Sumargiyani, 2018).

Several previous studies have developed e-modules as learning resources. Research conducted by Seruni, et al. (2019), entitled The Development of a Biochemical Electronic Module (E-Module) in Lipid Metabolism Material Using Flip Pdf Professional, showed that the electronic module had been validated by material, language, and media experts. Field trials were carried out on a small scale of 20 biochemistry students and lecturers. The results showed that the e-modules were good modules viewed by the results of experts about 83.35 % to 85.00%. The results of field trials also show that the module has a good interpretation

with a percentage of 84.39 %. Through the trial results, it can be concluded that the e-module has a good category and gets positive responses from students and lecturers. Another research was conducted by Oktavia (2021) with the title The Development of Web-Based Indonesian E-Module at SMK Negeri 2 Wajo. The research results show that; 1) the e - module was successfully developed through the stages of analysis, design, development, implementation, and evaluation; 2) the results of the average percentage of total teacher responses were 92.30%. In addition, the results of the average percentage of total student responses were 94.46% with the criteria of "Very Practical". Thus, it can be concluded that the web-based Indonesian language e-module is suitable for Indonesian language teaching materials in class XI SMK.

Literature Review

E-Module (Electronic Module)

Electronic modules (e-modules) are learning tools that contain material, methods, limitations, and evaluations arranged in a systematic and interesting manner with the aim to achieve the expected competencies (Winarko, Sunarno, Masykuri, 2013: 60). According to Hafsah, Rohendi, Purnawan (2016: 107) module is one of the computer media containing animation or images to make it easier for students in understanding the material. The provision of e-modules allows students to have a faster pace of learning and they do not rely on teachers as sources of information. In addition, e-modules are learning tools or devices containing learning materials, strategies, obstacles, and assessment techniques that are planned efficiently and attractively to achieve the expected competencies with a level of complexity electronically (Seruni, 2019). Moreover, Wijayanto (2014) states that e-modules present data displays in book designs that are introduced electronically using hard drives, floppy disks, flash drives, or CDs and can be read using PCs, Androids, or electronic books. Furthermore, Cecep, K & Bambang, S. (2013: 69) also add that e-modules allow students to access them and have various advantages and different qualities.

Based on the description above, it can be concluded that e-modules are a set of digital or non-printed learning media that are systematically arranged to be used for independent learning purposes. It makes students easier to learn independently and solve problems in their own way. E-modules can be implemented as independent learning resources that help students to improve cognitive understanding by not relying on the only source of information.

Kepewaraan Course

The *Kepewaraan* course is a host or presenter course which has the goal of providing an understanding of the theory and practice of *Kepewaraan* discussing basic procedures and techniques through theoretical and empirical concepts. It deals with information to be a professional MC, presenter/host, protocol, reporter, and broadcaster. The material for this course includes: a) Public speaking as the mainstay of the science of personality, b) Fundamentals of MC, presenter/host, protocol, reporter, and broadcaster, c) Vocal techniques, fashion, make-up, body language, and carrier etiquette event (MC, presenter/host, protocol, reporter, and broadcaster), d) Designing, compiling, and packaging the host script (MC,

presenter/host, protocol, reporter, and broadcaster), e) Force majeure techniques and strategies (unexpected conditions or spontaneous actions), f) Variety and techniques of ice breaking non-formal events, g) Understanding and building *personal branding*, and h) Being a professional and reliable announcer (MC, presenter/host, protocol, reporter, or broadcaster).

In speaking, an MC must be able to pay attention to the linguistic factors that must be carried out in leading an event. It includes pronunciation, diction, intonation, and effective reasoning/sentence (Wiyanto and Astuti, 2002: 5-11). One of the communication strategies that must be possessed by a presenter is a persuasive communication strategy. The strategy is often used to influence, invite, or change audience opinion to be what the communicator wants (Mardhiyah, 2015). Learning activities in this course are carried out by prioritizing the discovery learning approach. Students are encouraged and facilitated to actively look for examples of cases and obtain information to achieve the expected targets, both knowledge, skills, and attitudes. There are 5 main methods that will be carried out in the course namely: presentations, findings from students, group-based class discussions (scaffolding), questions & answers/quizzes, and assignments.

Research Method

This research was research and development. It is divided into two stages, namely the research stage *and* the development stage. The development model chosen was the ADDIE development research model.
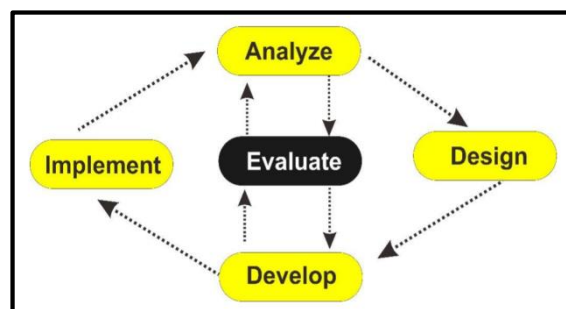
The ADDIE model was used because this model was simple and relevant and the procedure was in line with research on developing learning materials. The stages of development covered 1) Analyze), 2) Design, 3) Development 4) Implementation, and 5) Evaluation. The subjects of the research trial were conducted in a limited way consisting of one learning content expert, a media expert, an instructional design expert, and a linguist. The individual test subjects consisted of three students in the fifth semester. The small group test subjects consisted of six people. The data collected in this study were quantitative data. Quantitative data is a type of data that can be measured or calculated directly as a number or number variable. The methods used in collecting data were 1) the observation method using an observation sheet, 2) the interview method using the interview sheet instrument, and 3) the survey method using a questionnaire. The data analysis used was descriptive qualitative analysis and quantitative descriptive analysis. The qualitative descriptive analysis technique was used to process data from the results of content expert trials, instructional design experts, instructional media experts, linguists, individual test subjects, and small group test subjects.

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Information in the form of input, criticism, and suggestions in the questionnaire was used in revising the e-module product. The quantitative descriptive analysis method is a "systematic method of processing data in the form of numbers to obtain general conclusions" (Agung, 2017: 118).

Product trials in this development research consist of (1) trial design, (2) trial subjects, (3) data types, (4) data collection methods, and (5) data analysis techniques. The product developed in this development research was the e - module. To obtain a valid e -module product, then a trial phase was needed to determine its validity. Product trials were carried out in two stages, namely, 1) Expert Review: The developed e -module product was reviewed by four experts consisting of 1) a learning content expert, 2) a learning design expert, 3) a learning media expert, and 4) a language expert, and 2) Product Trial: the developed product was validated by experts, then continued by the implementation of trials on students. The tryout was carried out in two stages, namely, 1) an individual tryout, and 2) and small group tryout.

The subjects of the e-module development research trials were as follows. 1) Expert Trials: In the trial, the experts were a learning content expert, a media expert, an instructional design expert, and a linguist. The evaluation stage from experts was intended to obtain input regarding the product being developed. 2) Individual Trial: Individual trials were carried out to obtain initial input from the product being developed. Individual trials involve 1-3 subjects (Tegeh and Jampel, 2017). The test subjects consisted of three students in the fifth semester. 3) Small Group Trial: Small group trials involved 6-20 subjects (Tegeh and Jampel, 2017). The trial subjects consisted of six people.

The type of data collected in this study included quantitative data. In this study the methods used in collecting data were 1) the observation method using an observation sheet, 2) the interview method using the interview guide, and 3) the survey method using a questionnaire. An explanation of the three methods is as follows. 1) Observation Method : Agung (2017: 101) states that "the observation method is a way of making an assessment by systematic direct observation". The purpose of using this observation method is to collect data by direct observation so as to get real data. The instrument used was the observation sheet. An observation sheet was used to determine the learning facilities owned by students and see the learning process that occurs in class. 2) Interview Method: Agung (2017: 104) states that "the interview method is a method of collecting data by conducting systematic questions and answers, and the results of the questions and answers are carefully recorded" . 3) Questionnaire Method: Agung (2017: 106) states that "the questionnaire method is a way of collecting data by sending a list of questions to respondents to answer in writing". This method was used to measure the feasibility of e -module products from experts (content experts, learning design experts, experts in learning media, and linguists). The instrument used in the questionnaire method was a questionnaire sheet. The questionnaire was used to collect data about e-module product evaluations from experts (content experts, instructional design experts, learning media experts, and linguists). The developed product was done by conducting a feasibility test. E-module testing was carried out by content experts, learning design experts, learning media experts, and language experts.

The instrument blueprints were as follows. 1) Learning Content Expert Instrument: Content expert validation aimed to find out the material contained in the developed e-module including suitability with the syllabus, learning objectives to be achieved, and student characteristics that were reflected in several learning activities. 2) Learning Media Expert Instrument: Media expert validation aimed to determine the accuracy of the layout of shapes, colors, fonts, images, or objects, the accuracy of placement of images/objects, relationships between sub-chapters, and image quality. 3) Learning Design Expert Instruments: It was used to determine the quality of the learning material that has been developed in the e-module. In the instrument, there were three aspects covered, namely curriculum, methods, and evaluation. In the curriculum, some indicators were included, namely identity, competence to be achieved, learning objectives, and clarity of information. In the aspect of the method, several indicators were included, namely the clarity of the media, lesson plans, and study guides. In the evaluation aspect, several indicators were included, namely the availability of evaluation, the suitability of questions, and evaluation instructions. 4) Instruments of Linguists: It was used to know the language used in the e-module. In the instrument, two aspects were filled in the questionnaire, namely spelling, and grammar in the product being developed.

In addition to data collection instruments, other instruments were individual and small group trials. The individual and small group trial instruments aimed to find out the responses of students using the e-module. In this instrument, there are three aspects, namely learning media, materials, and benefits. After making the instrument blueprint (subject content experts, instructional design experts, learning media experts, linguists, and individual-small group trial subjects), the next step was to measure the validity of the instrument. The formula used in testing the validity of the instrument was Gregory (in Retnawati, 2016: 33) as follows.

$$VC = \frac{D}{A+B+C+D}$$

Information:

A = Cells indicating a discrepancy between the two raters

B = Cells indicating differences in views between raters

C = Cell indicating valid agreement between the two raters

Table 3. 1

Matrix tabulation

(Source: Gregory in Retnawati, 2016: 32)

Assessment I		Assessment II	
Relevant (Score 1-2)	Very Relevant (Score 3-4)	Less Relevant (Score 1-2)	Very Relevant (Score 3-4)

Gregory (in Retnawati, 2016: 32) states "if the agreement index is less than 0.4 then it is said to have low validity. Medium validity ranges between 0.4 -0.8 and more than 0.8 is said to have high validity. Data analysis started from the beginning when data collection was carried out intensively, namely at the reflection stage of each learning activity The process of data analysis was begun by examining all existing data from various stages of learning. The stages of data analysis activities were (1) qualitative descriptive analysis, and (2) quantitative descriptive analysis.

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The qualitative descriptive analysis method is a "systematic data processing method in the form of sentences to obtain general conclusions" (Agung, 2017: 118). Qualitative descriptive analysis techniques were used to process data from content expert trials, instructional design experts, instructional media experts, linguists, individual test subjects, and small group test subjects. Information in the form of input, criticism, and suggestions in the questionnaire is used in revising the e-module product.

The quantitative descriptive analysis method is a "systematic method of processing data in the form of numbers to obtain general conclusions" (Agung, 2017: 118). The formula used in processing score data in the questionnaire was as follows.

$$\text{Percentage} = \frac{\sum(Answers * weight\ of\ each\ option)}{n * the\ highest\ weight} VII\ 100\%$$

(Tegeh, and Jampel, 2017:99)

Information:

$\sum$ = Amount

N = Total number of questionnaires

Furthermore, the formula for knowing the overall percentage of subjects is:

$$\text{Percentage} = F : N$$

(Tegeh and Jampel, 2017:99)

Information:

F = total percentage of subjects

N = Total number of subjects

In giving meaning and making decisions, a conversion reference was used for the level of achievement on a scale of 5 as follows.

Table 3. 2

Conservation Achievement Level Scale 5

(Source: Tegeh and Jampel, 2017:223)

Achievement Level (%)	Qualification	Information
(1)	(2)	(3)
90-100	Very good	No need to revise
75-89	Good	Little revision
65-79	Fair	Revised
55-64	Moderate	Many things were revised
0-54	Not goof	Repeated product creation

Fishbone Diagram
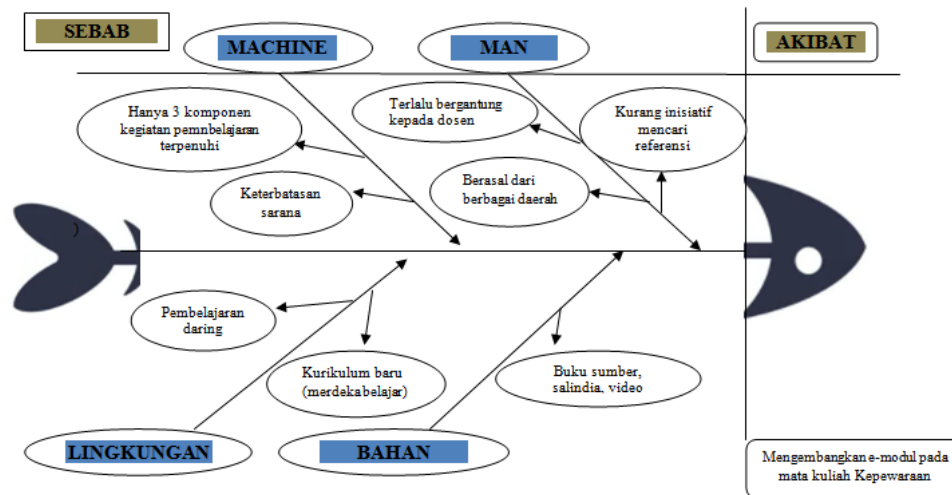
Result/Findings

This research was conducted in the *Kepewaraan* course at the Indonesian Language and Literature Education Study Program, Department of Language, Indonesian and Regional Literature, Faculty of Languages and Arts. The development of this E-module was carried out using the ADDIE development model, which consists of five stages of development, namely: (1) analysis, (2) design, (3) development stage, (4) implementation, and (5) evaluation.

1. Analysis

In this stage, the analysis covered curriculum analysis, students' characteristics, and module development. Curriculum analysis was carried out by examining the existing curriculum. It was intended that the developed module could be used by related institutions. Next was the analysis of the character of the students. Analysis of student characteristics was carried out by examining relevant theories, interviews with lecturers and students, and observations during learning activities. This analysis was carried out to find out in detail the condition of students who used the module being tested. The results of this analysis were used as a guideline for compiling and developing e-modules. It was considered important to do because it was to determine the level of student ability, student motivation, and other aspects. The last was module development analysis. This module development analysis was done by reviewing references that need to be considered in module development. It was done to meet proper and good modules. In this analysis, an assessment was carried out on the aspects to create and develop a good e-module, which met the eligibility aspects of the content, the feasibility of design aspects, the eligibility aspects of the media, and the eligibility aspects of the language.

2. Design

At this stage, the activities consisted of making flowcharts, preparing a systematic presentation of material, visualization, and designing evaluation tools. Selection of the assets was done at this stage. By determining the appearance of the interface and other components to be considered at each point in the e-module later.

3. Development

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The development stage was the stage to develop a product for the learning process.

a. E-module Content Development

The e-module product development process was carried out by collecting teaching materials. The material was obtained from class VII Indonesian language textbooks and other sources relevant. All learning resources used to develop e-modules were text, images, and videos which were combined using the *Flip PDF Professional application* as the main program.

b. E-module development

After the materials were combined, then it proceeded with making e-modules via laptops or computers. The following was the result of e-module development, namely as follows.

1) Cover on E-module

The cover was the front page of the e-module. The front cover of the e-module displayed the title, class, and product developer. It was designed to look attractive so that the e-module could attract students' attention to read it. The appearance of the front cover of the e-module can be seen in Figure 1 .

Picture 1
E-module Front Cover

2) Material Display on E-module

The material in the e-module has implemented message design principles, namely in the preparation of the material using *san serif* (*arial*) fonts with a font size of 12 points and the spacing between *lines* was 1.5. The preparation of e-module material was prepared by paying attention to the balance between text and image components. It was intended to avoid students from getting bored during learning. The display of e-module material can be seen in Figure 2.
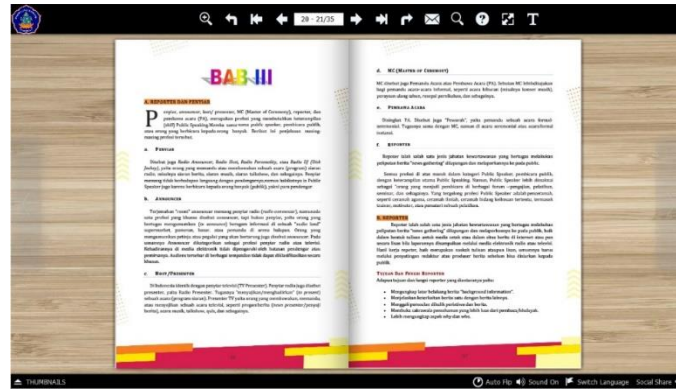
Figure 2
Display Material on E-module

3) Video Display on E-module

Besides presenting the text and images, this e-module also contained learning videos that aimed to provide variations to the products. It could increase students' interest in studying *Kepewaraan* course. When the video was played by students, it appeared in one layer, so that students were more focused on listening to the video presented in this e-module. The background music was automatically stopped which didn't disturb student concentration. The display of learning videos on e-modules can be seen in Figure 3 below.
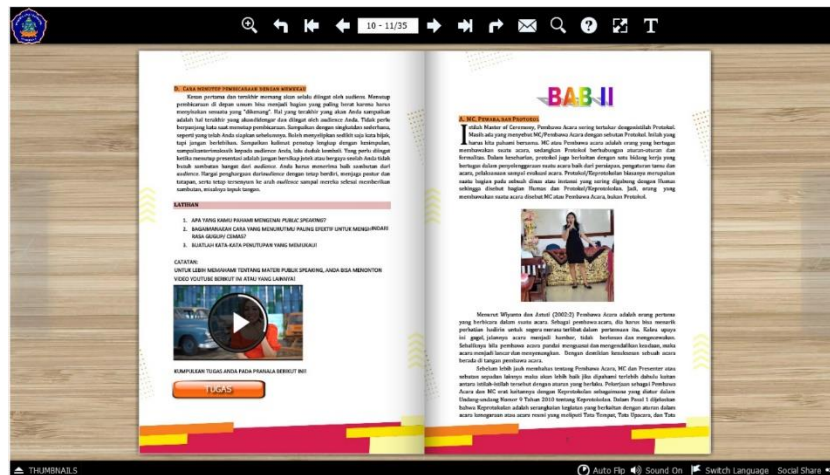

Figure 3
Display Video on E-module

4) The Exercises on E-module

At the end of the material, there was an exercise that contained several questions to be answered by students. The exercise aimed to measure students' abilities and understanding of the material presented. The exercise on the e-module can be seen in Figure 4.
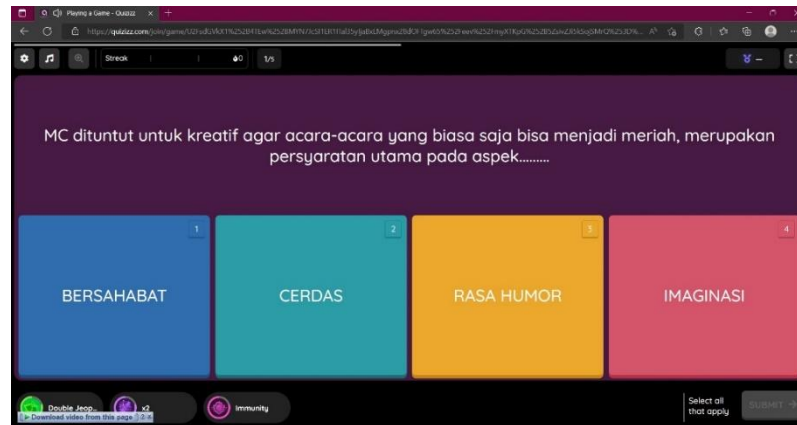
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Figure 4.4

Training Display on E-module

4.   Implementation

In this stage, all the existing devices in the e-module were implemented aiming to determine the efficiency and effectiveness of the developed products. In this study, the implementation stage was not carried out completely because the learning process was carried out online.

5.   Evaluation

The evaluation stage was the final stage of the ADDIE model. This stage was done to revise or improve at each stage of development to get a qualified product so as to increase the feasibility of the developed product.

Conclusion

The characteristics of e-modules are not much different from the printed modules. The characteristics of the learning module are as follows. 1) *Self-instructional*, students are able to teach themselves, not depending on other parties. 2) *Self-contained*, all learning material from one competency is reflected in a whole module. 3) *Stand alone* , the developed module does not depend on other media or does not have to be used together with other media. 4) *Adaptive*, the module should have high adaptive power to the development of science and technology. 5) *User-friendly*, the module should also meet the rules of being friendly/familiar to the users. 6) *Consistency*, consistent in the use of *fonts*, spacing, and layout.

E-module has advantages, namely as follows. 1) Increase student motivation because every time you do the task, the lesson is clearly limited based on your ability. 2) In the evaluation section, students know, the module parts that have been successfully mastered and the module parts that have not been successfully mastered. 3) Study materials are more evenly distributed in one semester. 4) Education is more efficient because learning materials are arranged in line with the academic level. 5) The display in the printed module can be changed to be more interactive and more dynamic. Elements of verbalism that are too high in print modules can be reduced by presenting visual elements with the use of video tutorials.

The results of the review from learning design experts found that the developed e-module has very good qualifications with a score of 93.33 %. Very good qualifications can be

achieved due to several things, namely: (1) clarity of subject identity and suitability of indicators with basic competencies, (2) completeness of learning media, clarity of lesson plans and learning instructions, and (3) availability and suitability of evaluations presented in e-modules with the subject matter of learning material. The results of the review from learning media experts found that the developed e-module has very good qualifications with a score of 97.5 %. Very good qualifications can be achieved due to several things, namely: (1) the accuracy and legibility of the text, (2) the compatibility of the images presented in the e-module with the learning materials, and (3) the availability of learning videos in the e-module.

The result of individual trials shows an achievement level of 95.33 %, in which the score has very good qualifications. The result of the assessment of the small group trial shows an achievement level of 95.53 %, in which the score has a very good qualification. The developed e-module is influenced by several things, namely: (1) the ease of use of the e-module, (2) the attractive appearance of the e-module, and the material presented in the e-module using communicative language.

The explanation of each aspect above is as follows. First is the ease of e-module. The developed e -module has already contained instructions to make students easier in using the e-module in the learning process. This is in line with research conducted by Diantari, et al (2018), which states that the ease of using learning media will provide students with comfortable media, as well as make it easier for students to access teaching materials independently.

Second, the appearance of the e -module is attractive and the presented material in the e- module uses communicative language. The e-module is designed as attractive as possible by paying attention to the images, *fonts, and font* layout on *the cover* e-module and attractive designs in the material presentation section to avoid students' boredom during the learning process. The language used in presenting the material is communicative and easily understood by students. It aims to provide comfort for students in learning, as well as make it easier for students to understand the material.

From the suitability of these two aspects in the developed e-module, it can be concluded that the developed e-module is suitable for students who are learning *Kepewaraan* course. In addition, it can increase students' learning motivation. It can be proven by the results of product trials.

Declaration of conflicting interest

There are some recommendations of the study as follows. 1) It is suggested to students that in learning activities, both on campus and at home, optimize the use of this e-module so that it can help make it easier to understand the subject matter of *Kepewaraan*. 2) It is suggested to teachers that the results of this e-module can be applied to teaching materials and improve student learning outcomes. 3) It is suggested to educational institutions facilitate the teachers in developing more creative e-modules so that, they can be used in ongoing learning. Considering the result of the study only reaches the product validation stage, it is suggested to other researchers who are conducting similar research to carry out research up to the product effectiveness test without any obstacles.

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