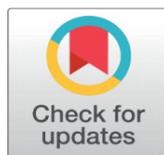


# APPLICATION OF CYBER LAW STUDIES WITH THE DEVELOPMENT OF AN INTERACTIVE MULTIMEDIA BASED E-MODULE

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## ABSTRACT

Cyber Crime, is a criminal phenomenon in the form of actions carried out in cyberspace which has made the public aware of the need for legal instruments that can be used as legal rules in dealing with cybercrime cases. Efforts to overcome cyber crime include enforcing cyber law as a defense against cyber crime. The development of technology which is increasingly sophisticated and increasingly pervasive in people's life activities amidst the increasingly widespread flow of globalization has resulted in positive and negative influences for technology users. Students, as part of society, also use IT in all their activities, from increasing their knowledge, entertainment, making friends and so on. In teaching and learning activities on campus, students utilize various technologies in the digital era to search for all information related to the assignments given by their lecturers, unlimited access to IT such as the use of contemporary communication models such as Line, WhatsApp, Twitter, Facebook, Instagram, email, video calls, voice calls, chats and so on, sometimes make students forget themselves and think that IT is an inseparable part of their world, sometimes they don't even care about the legal sanctions given by the campus or the state if they complain, babble, insult, Reproaches expressed on social media will have a negative impact. The lack of cyber law learning in students' learning lives means that interactive learning support media is needed which can encourage students to study cyber law by creating an interactive multimedia-based E-Module which can be accessed by students online using the Multimedia Development Life Cycle (MDLC) design method. Testing the application by distributing questionnaires to students who received the Cyber Law course. With this research, it is expected to be able to increase students understanding of cyber law.

**Keywords:** Interactive Multimedia, Cyber Law, E-Module, Cyber Crime, Technology, Application

## 1. INTRODUCTION

The rapid development of science and technology is also accompanied by the scope of information technology, so efforts are needed to prevent and prosecute cybercriminals. That cyber crime has special characteristics compared to other conventional crimes, namely regarding the scope of the crime, the nature of the crime, the perpetrators of the crime, the mode of crime and the type of loss it causes. Efforts to overcome cyber crime include enforcing cyber law as a defense against cyber crime. The development of technology is becoming increasingly sophisticated and increasingly penetrating the activities of people's lives, including the world of

education in the midst of globalization, thus encouraging the replacement of print technology with computer technology in learning activities. Modules, which were originally printed learning media, were transformed into electronic form, giving birth to a new term, namely electronic modules or better known as e-modules [Winatha et al. \(2018\)](#).

In teaching and learning activities on campus, students utilize various technologies in the digital era to search for all information regarding assignments given by their lecturers, unlimited access to IT such as the use of contemporary communication models such as Line, WhatsApp, Twitter, Facebook, Instagram and so on, sometimes makes students forget themselves and don't care about the legal sanctions imposed by the campus or the state if their comments, chatter, insults, insults expressed on social media will have a bad impact. The lack of cyber law learning in students' learning lives makes understanding cyber law material difficult to understand because the learning is still conventional and less interesting. Because the delivery of learning is still not interesting, and the teaching material has not been presented in an attractive way, the learning outcomes of students who take cyber law courses are influenced by various factors, including interest and motivation to learn, learning media, learning strategies, and learning methods. One solution to develop students' interest in learning about cyber law is with interactive learning media.

Previously, research had been carried out related to the Development of E-Learning Modules, namely the Development of Cognitive Style Oriented Modules for Class X Students of the Multimedia Department at Bali Global Singaraja IT Vocational School by [Setiani et al. \(2018\)](#), in this study using the variables examined in this study are cognitive style-oriented e-modules and learning outcomes of class X Multimedia at SMK TI Bali Global. Research data was collected using oral interview instruments, questionnaires, and learning achievement tests. The research data were analyzed descriptively qualitatively, descriptively quantitatively, and inferential statistics (t-test).

Other research is about the Development of E-learning Learning with Moodle (Modulator Object-Oriented Dynamic Learning Environment) by [Januhari \(2019\)](#) Web-based E-Learning information system using the Zachman Framework method using the Moodle display with design The user interface and e-learning planning with a Moodle display were developed on a web basis using the Zachman Framework method. In conducting system analysis and design, it begins with determining the scope of the problem approach that occurs and determines the scope of the system which includes all data, processes and system configurations needed and continues with the creation of a business model design, namely system management and the form of Class Diagrams, Activity Diagrams and Sequence Diagrams, and technology models.

Based on the description above, an interactive learning aid media is needed that can encourage students to study cyber law by creating interactive multimedia-based E-Modules that can be accessed by students online using the Multimedia Development Life Cycle (MDLC) design method. Testing the application by distributing questionnaires to students taking Cyber Law courses. With this research, it is expected to be able to increase students' understanding of cyber law.

## **2. MATERIALS AND METHODS**

### **2.1. CYBER LAW**

**Cyber Law is the law that regulates activities in cyberspace**

(cybercrime via the internet network). The term cyber law has formed a new legal regime in Indonesia, especially in technology and information activities. The cyber law legal regime in Indonesia is marked by the birth of Law Number 11 of 2008 concerning Information and Electronic Transactions which was promulgated by the President of the Republic of Indonesia on April 21, 2008.

Information and communication technology in Indonesia began with the development of computer technology since the 1990s and has become a concern of the Indonesian people and government. In 2000 the government began to take the initiative to regulate various activities in cyberspace. Attempts to regulate human activity in cyberspace including aspects of criminal law have been carried out since 2000, namely the first with the drafting of the Information Technology Utilization Bill initiated by the Directorate General of Posts and Telecommunications of the Ministry of Transportation. The Information Technology Utilization Bill was prepared by a team from the Faculty of Law UNPAD and ITB. Second, the Digital Signature Bill was initiated by the Ministry of Industry and Trade and compiled by the Tin Faculty of Law UI, specifically the Institute for Legal and Technology Studies (LKTH).

## **2.2. LEARNING MULTIMEDIA**

One of the most important characteristics of a multimedia product is multimedia interactivity, considering that its existence can influence the learning process and the content being studied. Learning multimedia products are part of the creative industry. In its construction/development, of course, apart from being effective, it must also be creative and innovative. The elements that must be fulfilled so that a product can be said to be creative and innovative are [Haris \(2014\)](#): Visionary and Innovator, Idea Engineering, Idea or Thought, Creative Thinking and Critical Thinking. The multimedia concept proposed by Vaughan in 2006 is that multimedia consists of text elements, images/photos, graphic arts, sound, animation and digitally manipulated video elements [Rusli \(2017\)](#).

## **2.3. E-LEARNING**

Proper use of e-learning can maximize learning outcomes. Some of the benefits of e-learning include according to [Rohmah \(2016\)](#). (1) with e-learning it can shorten learning time and make study costs more economical (2) E-learning makes it easier to interact between students and material materials, (3) Students can share information with each other and can access learning materials at any time and repeatedly Again, with such conditions, students can further strengthen their mastery of the learning material. (4) With e-learning, the knowledge development process does not only occur in the classroom, but with the help of computer and network equipment, students can be actively involved in the learning process. teach.

## **2.4. E-MODULE**

E-modules are learning tools or facilities that contain material, methods, limitations and ways of evaluating that are designed systematically and interestingly to achieve the expected competencies according to the level of complexity electronically [Imansari & Sunaryatiningsih \(2017\)](#).

E-Module is a form of module that is packaged digitally and interactively because the material can be presented in the form of PDF files, audio, video, animation and so on which are able to make students learn actively and

independently. E-Modules will also be useful in increasing the effectiveness of online teaching and learning activities because they can be accessed at any time.

## **2.5. METHOD**

The MDLC method is a suitable method for designing and developing a media application which is a combination of image, sound, video, animation, and other media. MDLC (Multimedia Development Life Cycle) is a system development method that is suitable for developing multimedia-based systems [Riyanto & Singgih \(2015\)](#). The Multimedia Development Life Cycle consists of six stages, namely [Kumala et al. \(2020\)](#).

### **1) Concept**

The stage to determine the purpose and who are the users of the program. The concept stage is the stage for determining the purpose and to whom multimedia is addressed (audience identification). In addition, it determines the type of application (presentation, interactive, etc.) and the purpose of the application (entertainment, learning, etc.) and the purpose of the application (entertainment, learning, etc.). Basic rules for design are also determined at this stage e.g., size, target. The output of this stage is usually in the form of a narrative document to express the project objectives to be achieved.

### **2) Design**

The design stage is the stage of making specifications including product architecture, style, appearance, and material requirements for the program. The specifications are made as detailed as possible so that at the next stage, namely material collecting and assembly, new decision making is no longer needed, usually using storyboards to describe the description of each scene by including all multimedia objects.

### **3) Material Collecting**

The stage of collecting materials according to the needs being carried out. Material collection is the stage of collecting materials that suit the needs being worked on. These materials include clip-art, graphics, animation, video, audio. This stage can be carried out in parallel with the assembly stage, but it is also possible that the material collecting stage and the assembly stage will be carried out in a linear and non-parallel manner.

### **4) Assembly**

Manufacturing Stage. The assembly stage is the stage of making all objects or multimedia materials made. Project creation is based on the design stage, such as a storyboard, flowchart, or navigational structure.

### **5) Testing**

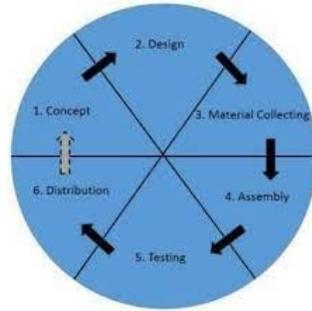
Testing Stage. This stage is carried out after completing the assembly stage by running the product to see if there are errors or not. This stage is called the alpha testing stage (alpha test) where testing is carried out by the manufacturer. The function of this stage is to see whether the results of the project are as expected or not.

### **6) Distribution**

The product will be stored in a storage medium. At this stage the product will be stored in a storage medium. If the storage media is not sufficient to accommodate the product, compression of the product will be carried out. This stage can also be referred to as the evaluation stage for the development of finished products so that

they become better. The results of this evaluation can be used as input for the concept stage of the next product.

**Figure 1**



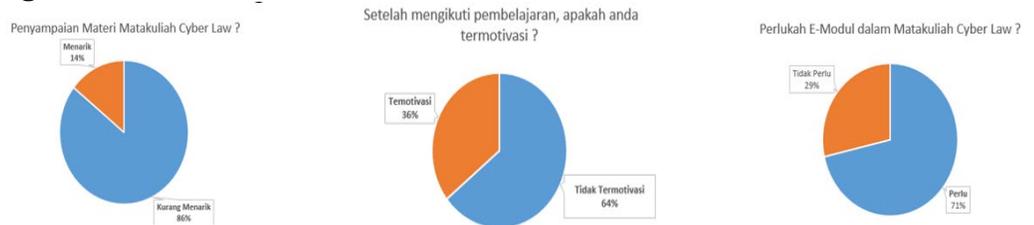
**Figure 1** Multimedia Development Life Cycle

### 3. RESULTS AND DISCUSSIONS

#### 3.1. REQUIREMENT ANALISYS

Based on the results of observations and identification of problems as well as distribution of questionnaires in two classes, namely in classes CA201 and VA194, before the e-module was created, the following results were obtained:

**Figure 2**

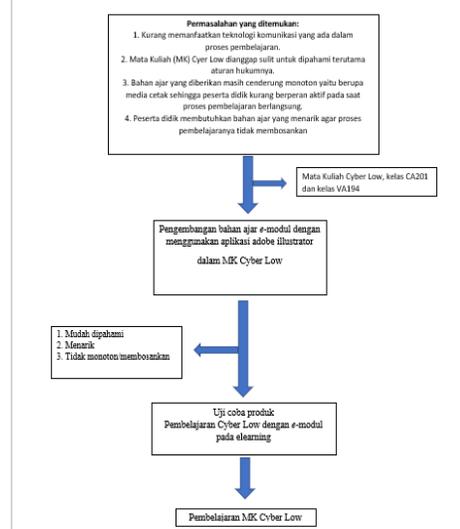


**Figure 2** Initial Questionnaire Results

In the first question regarding the delivery of Cyber Law material in both classes, 14% of students said the material was interesting and 86% said it was less interesting. The second question is about the motivation obtained after participating in learning. As many as 36% of students said they were motivated and 64% said they were not motivated. The third question regarding the need for E-Modules in learning Cyber Law, as many as 29% of students said they did not need it and 71% of students said they needed E-Modules in learning Cyber Law.

In the learning process, of course, a tool is needed to convey learning material, so that it is more easily accepted by students and interesting. Learning aids that are often referred to as teaching materials. The stage in developing teaching materials using the Adobe Illustrator application, a software application that is quite popular among professionals, business design and the art world, which is used by graphic designers to create vector graphics. then continued with collecting supporting data to be used as initial data, then continued with character design, then continued with media and material design validation with the Cyber Low course coordinator, to determine the accuracy of the learning media content, then continued with improving the design of the e-module which has been validated and after that the e-module per material according to the meeting in the RPS is tested on e-learning media with classes taking Cyber Law courses.

**Figure 3**



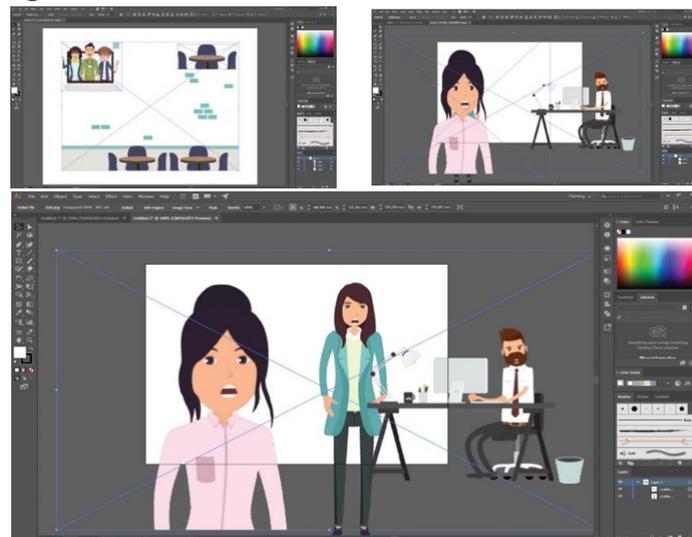
**Figure 3** Research Framework

### 3.2. E-MODULE MAKING

In this design, the aim is to create a design or details of the system being created to explain in detail how the system runs. Design planning is the next stage after system analysis, design planning concerns the creation of structure, flow and navigation schemes regarding the design and construction of learning media. The e-module design will be adjusted to the material at each meeting during the semester learning plan (RPS) for the Cyber Law course. Apart from the material, there will be practice questions at the end of the presentation of the material as material for quizzes and evaluation of learning outcomes.

The design process stages are carried out by creating 2D animated objects and characters, using "Adobe Illustrator", then after all the assets have been created, they will enter the process of combining the animated assets to be used as e-module animation material in Power Point.

**Figure 4**



**Figure 4** Animated Objects & Characters

Figure 5



Figure 5 Display of Animated Characters on Material

Cyber low e-module is made from a series of materials and animations using a computer program for presentations (Microsoft Office PowerPoint), creating animated objects using Adobe Illustrator software, and dubbing presentations directly on PowerPoint, and then combining the content with audio and video narration and animation, then the results of the cyber low e-module can be accessed via the following link : [https://drive.google.com/file/d/1v7lghdhoa-R\\_194mREHJnH\\_iDJF2dREYv/view?usp=sharing](https://drive.google.com/file/d/1v7lghdhoa-R_194mREHJnH_iDJF2dREYv/view?usp=sharing)

Figure 6

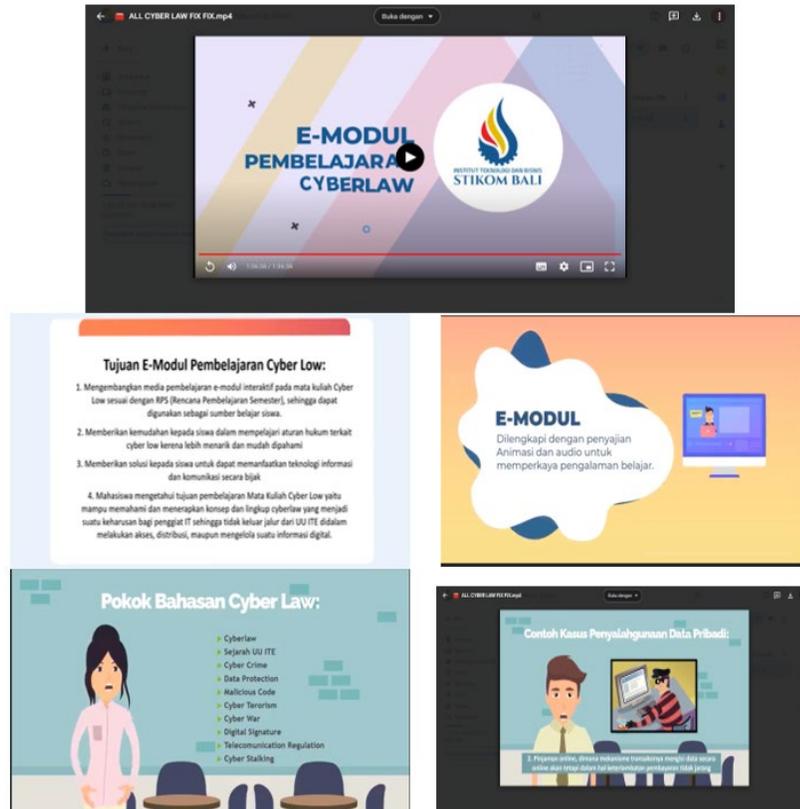


Figure 6 E-Module Cyberlaw

### 3.3. DISTRIBUTION OF E-MODULES

E-Learning is very effective for students to use at any time. Proper use of e-learning can maximize learning outcomes. After the e-module has been verified by the teaching lecturer and coordinating lecturer of MK Cyber Law and has met the expectations and the e-module has been realized very well, then the e-module in the form of a video file is given to students who take the cyber law course in class CA201 and class VA194 by the teaching lecturer (I Made Pasek Pradnyana Wijaya, S.kom., M.Kom) and distributed online via e-learning.stikom-bali.ac.id (LMS Moodle which has been provided by the ITB STIKOM Bali campus).

Figure 7

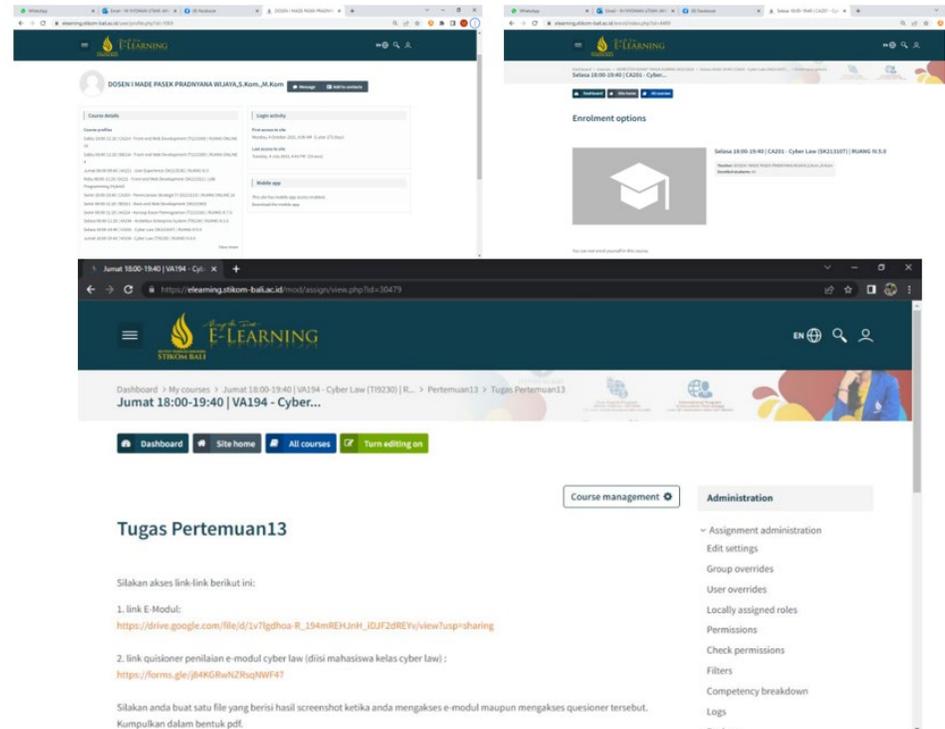


Figure 7 E-Modul in LMS (Learning Management System)

### 3.4. EVALUATION OF E-MODULE

Evaluation of the e-module was carried out by testing a questionnaire which was an objective test involving several respondents (students taking cyber law courses in class CA201 and class VA194, Even Semester 2022/2023) by directing respondents/students to try using cyber law by developing Interactive Multimedia-Based E-Modules and then filling out the questionnaire. In the evaluation of the E-module there are 20 questions which are divided into 2 categories, namely the quality of the e-module and the eligibility of the e-module.

#### 3.4.1. QUALITY OF E-MODULE

E-module quality in terms of components: material, media, learning process. These aspects are arranged and calculated based on the feasibility category. The calculation can be seen below and shown in the diagram below.

**Table 1**

Table 1 Aspect Questions for E-Module Quality	
Aspect	Question
Material	1. The description of the material in the e-Module is easy to understand
	2. The material in the e-Module is in accordance with the RPS
	3. The material in the e-module is presented clearly and is easy to follow
Media	4. The language used in the e-Module is easy to understand
	5. The audio quality in the e-Module is clear
	6. The text in the e-Module can be read clearly
	7. The use of images in the e-Module is in accordance with the lesson material
Learning Process	8. Learning using the lecture method feels boring
	9. By using e-Modules the learning process is not boring
	10. I focus more on following lessons when using e-Modules
	11. The use of e-modules in the learning process allows me to learn more quickly and understand the subject matter more easily

The following are the results of calculating the quality of the E-module in terms of components: material, media, learning process which consists of 11 questions and 37 respondents which can be seen in the following table.

**Figure 8**

No.	Responden	Nomor Pertanyaan dan Bobot Nilai										Nilai Total	Rata-rata Nilai	
		1	2	3	4	5	6	7	8	9	10			11
1	Irwan Cahyadi Putra Minegishi	4	4	4	4	3	3	3	4	3	3	3	38	3.5
2	Sawaludin Jaelani	4	3	4	4	3	3	4	1	4	4	4	38	3.5
3	Christian Ezra Primayudha	3	3	3	4	4	3	4	3	4	4	3	38	3.5
4	Lilis Frintia	4	4	4	4	3	4	4	3	4	4	4	42	3.8
5	Gede Gunada	3	3	3	3	4	3	3	4	3	3	3	35	3.2
6	Wayan Sutan Astapa	4	3	3	3	3	3	3	3	3	3	3	34	3.1
7	Rizky Fahreza Ali	3	3	3	3	4	4	3	3	3	3	3	35	3.2
8	I Putu Adi Pranata	4	4	4	4	4	4	4	4	4	4	4	44	4.0
9	Komang Bagas Wiradangkya	3	1	3	3	4	3	2	2	2	1	26	2.4	
10	Ketut Krisna Candra	3	4	3	4	3	3	3	4	3	3	3	36	3.3
11	Muhammad Ilham Maulana	4	4	4	4	3	4	4	3	4	3	4	41	3.7
12	Ketut Nanda Harykarsa	4	4	4	4	4	4	4	2	3	3	3	39	3.5
13	Made Juliantara	4	4	4	4	3	4	3	2	3	3	3	37	3.4
14	Ni Kadek Emi Ariani	4	4	3	3	2	4	3	3	3	3	3	35	3.2
15	Agung Sima Maha Praja	4	4	3	3	3	4	4	4	4	4	4	41	3.7
16	Ni Putu Kartika Prasista Utami	4	4	4	4	3	4	3	3	3	3	4	39	3.5
17	Ian Ivan Ekalawya	4	4	3	3	4	4	3	3	4	3	4	39	3.5
18	Gede Yoga Fatma Wijaya	3	3	3	3	4	4	4	3	3	3	3	36	3.3
19	Muhammad Dimas Maulana	3	3	3	3	3	3	3	3	3	3	3	33	3.0
20	Putu Dedik Santika Putra	4	4	4	4	4	4	4	4	1	2	1	36	3.3
21	Wayan Krisnadi Esa Putra Pande	3	3	3	3	3	3	3	3	3	3	3	33	3.0
22	Gst. Ngr. Surya Adiputra	4	4	4	4	4	4	4	4	4	4	4	44	4.0
23	Putu Ngr Bgs P Kusuma Negara	3	3	4	4	3	3	4	3	3	2	3	35	3.2
24	I Putu Angga Dana Paramarta	3	3	4	4	4	4	4	2	3	3	3	37	3.4
25	Made Dwi Angga Cahya Dinatha	4	4	4	4	3	4	4	4	4	4	4	43	3.9
26	Putu Yudi Wantara	4	4	4	4	4	4	4	4	4	4	4	44	4.0
27	Leivan Susanto	4	4	3	3	3	3	3	4	3	3	3	36	3.3
28	I Wayan Mulya	4	4	4	4	4	4	4	4	4	4	4	44	4.0
29	Thomas Trihuanito Joni	3	3	3	4	3	3	3	3	2	1	1	29	2.6
30	Putu Surya Antara	3	3	3	3	3	3	3	2	3	3	3	32	2.9
31	Ngakan Ade Herry Hermawan	4	4	4	4	3	4	4	3	4	3	3	40	3.6
32	Tjok Indira Dewi Pemayun	4	4	4	4	4	4	4	4	4	4	4	44	4.0
33	I Putu Dedik Santika Putra	4	4	4	4	4	4	4	2	2	2	2	36	3.3
34	Wayan Agus Artana Putra	3	3	3	3	3	3	3	2	3	2	2	30	2.7
35	Komang Reyza Kencana Corry	4	4	4	4	4	4	4	4	4	4	4	44	4.0
36	Made Putra Mahardika	3	3	3	3	3	3	3	3	3	3	3	33	3.0
37	Desi Citra Sawaki	4	4	4	4	4	4	4	4	4	4	4	44	4.0
total rata-rata												3.4		
Persentase 3,4/4*100												85%		
keterangan												Sangat Setuju		

**Figure 8 Answer for Respondent E-module Quality**

From the data in Figure 8 above, the total average value is 3.4 with a percentage of 85%. So, it can be concluded that based on the questions given to respondents regarding the quality of the E-Module, the respondent stated "Strongly Agree" with what was conveyed in the questionnaire question on Implementing Cyber Law Studies with the Development of Interactive Multimedia-Based E-Modules. So, it can be said that the quality of the E-Module is very good.

### 3.4.2. E-MODULE FASIBILITY

The feasibility of the E-module can be seen when used in learning activities in terms of (a) appearance/layout, (b) coloring, (c) operation in using the e-module.

**Table 2**

Table 2 Aspect Questions for E-Module Fasibility	
ASPECT	QUESTION
Appearance/layout	12. The visual appearance in the e-Module looks attractive
	13. Placement of text and supporting illustration images is appropriate and appropriate
	14. The e-Module layout is comfortable to look at
Coloring	15. The use of color in e-Module illustrations is appropriate and does not damage the presentation of the material
	16. The use of background colors contrasts with the presentation of the material
Operation	17. e-Modules are effectively used as learning media
	18. The instructions on the e-Module make it easier to use
	19. e-Modules are flexible to use
	20. The e-Module can easily be operated

The following are the results of calculating the quality of the E-module in terms of appearance/layout, colouring, and operation.

**Figure 9**

No.	Responden	Nomor Pertanyaan dan Bobot Nilai									Nilai Total	Rata-rata Nilai
		12	13	14	15	16	17	18	19	20		
1	Irwan Cahyadi Putra Minegishi	3	3	3	3	3	3	3	3	3	27	3.0
2	Sawaludin Jaelani	3	3	3	4	3	4	4	3	3	30	3.3
3	Christian Ezra Primayudha	4	3	3	3	3	4	4	3	3	30	3.3
4	Lilis Frintia	4	4	4	4	4	4	4	4	4	36	4.0
5	Gede Gunada	3	3	3	3	3	3	3	4	4	29	3.2
6	I Wayan Sutan Astapa	3	3	3	3	3	3	3	3	3	27	3.0
7	Rizky Fahreza Ali	4	3	4	4	4	3	3	4	3	32	3.6
8	I Putu Adi Pranata	4	4	4	4	4	4	4	4	4	36	4.0
9	I Komang Bagas Wiradangkya	3	3	3	3	1	3	4	4	4	28	3.1
10	I Ketut Krisna Candra	4	2	2	2	2	4	3	3	3	25	2.8
11	Muhammad Ilham Maulana	4	4	4	4	4	4	4	4	4	36	4.0
12	I Ketut Nanda Harykarsa	4	4	4	4	3	4	4	4	4	35	3.9
13	I Made Juliantara	4	4	3	3	3	4	3	2	4	30	3.3
14	Ni Kadek Emi Ariani	3	3	3	3	3	3	3	4	4	29	3.2
15	Agung Sima Maha Praja	4	4	4	4	4	4	4	4	4	36	4.0
16	Ni Putu Kartika Prasista Utami	3	3	4	4	4	4	4	3	4	33	3.7
17	Ian Ivan Ekalawya	4	4	4	4	4	4	4	4	3	35	3.9
18	I Gede Yoga Fatma Wijaya	4	4	3	3	3	4	4	4	4	33	3.7
19	Muhammad Dimas Maulana	3	3	3	3	3	3	3	3	3	27	3.0
20	I Putu Dedik Santika Putra	2	4	4	4	4	4	3	3	4	32	3.6
21	I Wayan Krisnadi Esa Putra Pande	3	3	3	3	3	3	3	3	3	27	3.0
22	I Gst. Ngr. Surya Adiputra	4	4	4	4	4	4	4	4	4	36	4.0
23	Putu Ngr Bgs P Kusuma Negara	4	4	4	4	3	4	4	4	4	35	3.9
24	I Putu Angga Dana Paramarta	4	4	4	3	3	3	4	4	4	33	3.7
25	I Made Dwi Angga Cahya Dinatha	4	4	4	4	3	3	3	3	3	31	3.4
26	I Putu Yudi Wantara	4	4	4	4	4	4	4	4	4	36	4.0
27	Leivan Susanto	3	4	3	3	3	3	3	4	4	30	3.3
28	I Wayan Mulya	4	4	4	4	4	4	4	4	4	36	4.0
29	Thomas Trihuanito Joni	3	3	3	3	3	3	2	3	4	27	3.0
30	I Putu Surya Antara	3	3	3	3	2	4	3	4	3	28	3.1
31	Ngakan Ade Herry Hermawan	4	4	4	4	2	4	4	4	4	34	3.8
32	Tjok Indira Dewi Pemayun	4	4	4	4	4	4	4	4	4	36	4.0
33	I Putu Dedik Santika Putra	3	4	4	4	4	3	4	4	4	34	3.8
34	I Wayan Agus Artana Putra	2	3	2	2	2	3	2	2	3	21	2.3
35	Komang Reyza Kencana Corry	4	4	4	4	4	4	4	4	4	36	4.0
36	I Made Putra Mahardika	3	3	3	3	3	3	3	3	3	27	3.0
37	Desi Citra Sawaki	4	4	4	4	4	4	4	4	4	36	4.0
total rata-rata											3.5	
Persentase 3,5/4*100											87,5%	
keterangan											Sangat Setuju	

**Figure 9** Answer for Respondent E-Module Fasibility

From the data in [Figure 1](#) above, the total average value is 3.5 with a percentage of 87.5%. So, it can be concluded that based on the questions given to respondents regarding the feasibility of E-Modules, respondents stated "Strongly Agree" with what was conveyed in the questionnaire questions on the Application of Cyber Law Studies with the Development of Interactive Multimedia-Based E-Modules. So, it can be said that E-Modules are very suitable for use as learning media.

#### 4. CONCLUSIONS AND RECOMMENDATIONS

- 1) Based on the results of the research and discussion, conclusions are obtained
- 2) as follows: E-module cyber law is made from a series of materials and animations using a computer program for presentations (Microsoft Office PowerPoint), creating animated objects using Adobe Illustrator software, and dubbing presentations is done directly on PowerPoint and combines the content with audio and video narration and animation. Cyber Law learning development through e-modules can be implemented in an interesting and easy to understand manner by paying attention to:

The quality of the Cyber Law Learning E-module is very good for use as a learning medium in terms of aspects: material, media, and learning process with a total average score of 3.4 with a percentage of 85%.

- 3) The suitability of the E-module is very good for use as a learning medium in terms of appearance/layout, colouring, and operation aspects with a total average score of 3.5 with a percentage of 87.5%. The development of interactive multimedia-based e-modules is very feasible. The application of Cyber Law learning can be accessed online by students through interactive multimedia-based e-module cyber technology media with links : [https://drive.google.com/file/d/1v7lgdhoaR\\_194mREHJnH\\_iDJF2dREYv/view?usp=sharing](https://drive.google.com/file/d/1v7lgdhoaR_194mREHJnH_iDJF2dREYv/view?usp=sharing) which can be accessed by students taking low cyber courses in CA201 class and VA194 class on ITB STIKOM Bali elearning.

#### CONFLICT OF INTERESTS

None.

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