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Development of E-Modules Containing the Quran and Hadith to Increase Student Motivation

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Abstract

An electronic module with motivational content from the verses of the Quran and Hadith designed through the teaching of Discovery Learning with Linear Impulse and Momentum material is not yet available. This research and development aim to produce e-modules containing verses from the Qur'an and Hadith that are suitable for use in learning. This research aims to describe the validity, practicality, and effectiveness of e-modules containing verses from the Qur'an and Hadith. This study uses the ADDIE development model with the subject of an e-module trial containing verses from the Koran and Hadith, which was tested on ten students of class X MIPA 1 MA Negeri 1 Banjarmasin. Data collection techniques were carried out through interviews, questionnaires, and tests. Data analysis was carried out through the percentage validity test, the average score of the response questionnaire, the learning outcomes test and the ARCS motivation questionnaire. The results showed that: 1) The validity of the e-module got a score of 84.88%, which was categorized as very high with a reliability of 0.97, 2) The practicality of the e-module got 78.71% which was categorized as practical, 3) The effectiveness of getting an N score-gain of 0.79 with a high category 4) Students' learning motivation gets an N-gain score of 0.52 which is categorized as moderate. It was concluded that the e-module containing the verses of the Qur'an and Hadith was suitable for use in learning

Keywords: E-module; Impulse and Momentum; Verses of the Quran and Hadith

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INTRODUCTION

Education has a very vital role in improving the quality of human resources. Therefore, the field of education must be developed continuously following the progress of the times. Following the Law of the Republic of Indonesia Number 20 of 2003, "Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious, spiritual strength, self-control, personality, intelligence, noble character, as well as the skills needed by himself, society, nation and state". So that education can be a place to develop the potential that exists in each individual. Because without education, humans will not be able to achieve a better standard of living (Saharsa et al., 2018)

Until now, there have been many changes in the education system in Indonesia; these changes occurred because of efforts to reform education due to the influence of changing times (Hamidah et al., 2021). The 21st-century learning system is a learning transition where the currently developed curriculum requires schools to change an educator-*centred learning* approach to a *student-centred learning* approach. (Wahyuni, 2020). One of the characteristics of the 2013 curriculum is to develop a balance between spiritual and social attitudes and knowledge and skills possessed by students and be able to apply them in various situations, both at school and in society.

According to Keller (2010), motivation refers broadly to what people want, what they choose to do and what they are committed to doing. In other words, the investigation of motivation seeks to explain why a person does what he does. Motivation is an unbeing energy, and its form can only be considered in the form of the perpetrator's action. Motivation is a condition in a person's personality that encourages that person to carry out certain activities to achieve the goals he wants. So, motivation is not something that someone is interested in but can be concluded thanks to something we can see. Every activity carried out by a person is driven by force from within that person. This driving force is called motivation (Fadlih & Riyanto, 2019).

Physics is one of the branches of Natural Sciences which deals with natural phenomena and requires students to master science concepts and products which place more emphasis on the process approach so that they can apply them in everyday life. The process approach, in this case, shows that in learning physics, students do not only listen to lectures and read subject matter, but students are also required to be active directly in teaching and learning activities so that physics teaching is carried out not only to master concepts but also to train mindsets. And student personality in life (Peranti et al., 2019). Each subject has different characteristics from one another, especially physics subjects. These characteristics are very influential in determining the models and methods that can be used in learning. One of the physics materials that must be taught based on the revised 2013 curriculum for SMA class X MIPA even semesters is linear impulse and momentum material. Basic Competencies of the material to be achieved are: 3.10 Applying the concepts of momentum and impulse, as well as the law of conservation of momentum in everyday life; and 4.10 Presenting the results of testing the application of the law of conservation of momentum, for example, a ball in free fall to the floor and a rocket. The material for impulse and linear momentum consists of several sub-materials: a. the concept of impulse and momentum, b. the law of conservation of momentum and c. types of collisions.

In every learning process, students are expected to get good learning outcomes. However, the results in the field say that the learning outcomes obtained by students are only sometimes good and only sometimes as expected. As a standard, whether or not learning outcomes are based on the KKM that has been set as a benchmark for the success of the learning process (Puwardana & Suastika, 2021). One of the reasons for poor learning outcomes is the lack of encouragement for students to learn. According to Budiariawan (2019) students who have less motivation cause students to have less motivation to learn.

Based on the results of interviews conducted at MAN 1 Banjarmasin with a Physics subject teacher. The curriculum used in MAN 1 Banjarmasin is the 2013 curriculum. The method used by the teacher in teaching is the lecture method. Barriers experienced by teachers during online learning include unstable signals,

limited internet quota, lack of facilities owned by students and internal problems of students who are lazy to learn and the lack of responsiveness of students when learning. The teacher's effort in overcoming this is by classifying students and then reprimanding students with problems. As for learning resources, the teacher frees students to find resources to meet their learning needs. The minimum completeness criteria are 75 for class X MIPA. More than half the number of students generally scored below the minimum completeness criteria. During online learning, the teacher never gives motivation that contains verses from the Koran or Hadith due to time constraints. In learning, the teacher only learns with the media because of the limited ability of the teacher.

Based on the results of the questionnaire on the needs of students in class X MIPA 1 MAN 1 Banjarmasin which was held on February 21, 2021, 75% of students agreed that they were given teaching materials other than printed books, 63.09% of students had textbooks or other handbooks. to study physics, 64.29% of students consider physics easy, 51.19% of students find it easy to understand physics textbooks, 65.47% of students are motivated to study physics textbooks at school, 76.19 students need a special module to study physics lessons, 70.23% of students think that modules that can be accessed via the internet are better than the printed version of the module, 95.29% of students consider the Qur'an as a guide life, 76.19% of students agree that they will be motivated to learn if teaching materials at school are inserted with spiritual motivation, amounting to 76.19% of students need a module that includes verses from the Qur'an and Hadith, 85.71% of students agree that interesting learning media will increase their motivation to learn.

In addition to the student needs questionnaire, the researcher also asked students to fill out an ARCS motivation questionnaire that used four aspects: *Attention, Relevance, Confidence and Satisfaction*. The results show that students have a high percentage of motivation. However, the questionnaire results also show that some students still need to be motivated to learn, namely 31.20% in the *Attention aspect*, 30.71% in the *Relevance aspect*, 34.04 % in the *Confidence aspect* and 29.17% of students on the *Satisfaction aspect.*

Research by Agusti et al. (2019) states that using physics teaching materials that contain verses from the Koran can increase students' learning motivation. Research by Jamil (2019) states that the ARCS model can be an alternative to maintain and grow students' learning motivation both as a learning model and as a measuring tool for students learning motivation levels. Research by Zaharah & Susilowati (2020) states that the module Electronic technology is very effective in increasing student learning motivation and improving student learning outcomes. Electronic modules are also very suitable for Physics learning media because they can be integrated with the internet. Research conducted by Nurindah et al. (2018) shows that there is a significant influence on learning motivation in the use of multimedia-based learning media. According to Abbas & Hidayat in Putra et al. (2019), using media or other facilities will help students reduce their dislike of physics. So that the use of media can be a solution to increase students' motivation to learn physics. Research by Suyidno et al. (2019) states that the use of appropriate learning methods and media will affect students' motivation, and the right learning media can also affect students' activeness in learning

One learning media that can be developed to increase students'

motivation and attitudes is e-module. E-Modules are electronic teaching materials that are arranged practically and systematically based on a specific curriculum, contain a set of experiences or learning activities that are used to support the learning process and are designed so that students can independently achieve specific learning goals (Misbah et al., 2021; Muhammad et al., 2021; Wulandari et al., 2020). E-modules are also more attractive to students because other media, such as images, animations, audio and video, can be inserted. In addition, along with the increasingly rapid development of technology today, almost all students, especially high school students, are familiar with computers or other electronic media, so using e-modules is not difficult to implement (Herawati & Muhtadi, 2018; Wati et al., 2021).

Based on the description above, the solution provided by the researcher is the development of an e-module containing the Qur'an and Hadith on impulse and momentum material. It is hoped that this solution will increase students' learning motivation so they can actively develop their potential, as stated in the educational objectives. Therefore, the researcher proposes research titled "Development of an E-Module Containing the Al- Quran and Hadith on Linear Impulse and Momentum Materials to Increase Students' Motivation".

METHOD

The development model used for this research is the ADDIE (*Analysis, Design, Development, Implementation* and *Evaluation*) model. ADDIE has the following stages listed in Table 1.

Table 1 Stages of ADDIE Model Research

Stages	Description
Analyze	At this stage, the researcher analyzes the competency standards and basic competencies set in the syllabus. At this stage, the researchers set up indicators and learning objectives.
Design	At this stage, the researcher offers a solution, namely learning media in the form of e-modules *in the* form of a *flipbook* with the motivation of containing the Koran and Hadith to increase students' learning motivation and achieve the expected learning goals.
Development	This stage aims to integrate content with supporting media and develop systematic guidelines in content creation to produce e-modules containing the Quran and Hadith that can be accessed through various smartphone devices.
Implement	This phase is to apply an e-module containing the Quran and Hadith to 10 students of class X MIPA 1 MAN 1 Banjarmasin
evaluate	This phase consists of two parts, namely formative evaluation and summative evaluation. Formative evaluation can occur during the previous four phases, while summative evaluation occurs at the end of the research implementation test. The data from the

	summative evaluation is used to calculate the effectiveness and achievement of the e-module objectives and then revised if necessary

(Mastuang et al., 2019).

The subject of this research is an e-module containing the Quran and Hadith on impulse and linear momentum material to increase student motivation. In contrast, the object of the research is the feasibility of an e-module containing the Quran and Hadith on impulse and linear momentum material to increase learners' motivation. The data collection techniques used a validation questionnaire instrument, student response questionnaires, learning outcomes tests and ARCS motivation questionnaires. Before conducting the research, the researcher conducted a preliminary study by providing a questionnaire on the needs of students, an ARCS motivation questionnaire and interviews with the physics teacher at MAN 1 Banjarmasin.

Student response questionnaires were given via google form with a total of 18 questionnaires. Student response questionnaires were used as a reference for practicality scores. The learning outcome test is given in the e-module in the form of an essay. Learning outcomes test is used as a reference to get an effectiveness score. The ARCS motivation questionnaire was given through *a google form* which was then used to get students' motivation scores. The e-module is said to be valid if the minimum validation score is categorized as moderate. E-modules are said to be practical if they are categorized as moderate. E-module is said to be effective if the N-gain score from the learning outcomes test if the minimum score is categorized as moderate. The target of increasing student motivation is said to be achieved if the N-gain score from the ARCS questionnaire is at least in the moderate category.

RESULTS AND DISCUSSION

This e-module was developed through *professional PDF flip software,* which is very responsive and easily adaptable to the device screen size. Font sizes, images, *layouts*, and content presentation do not change even though different devices access them. This e-module can be accessed by all device users, both computers and smartphones, without needing additional software or hardware.

The electronic module that has been developed is then tested for validity by three validators, as shown in Table 2. The observed aspects are software engineering, content quality, organization, language, visual communication, format, shapes and letters, validity, and reliability.

Table 2 Validation Results

Aspect	Score	Category
Software engineering	84.52	Very high
Content Quality	84.38	Very high
Organization	87.50	Very high
language	81.25	Very high
Visual Communication	91.67	Very high
Format	81.67	Very high
Shapes and Letters	83.34	Very high
Validity	86.33	Very high
Reliability	0.97	Very high

The data in Table 2. shows that the overall validity results show that the developed e-module containing the Qur'an and Hadith is categorized as very high. The e-module containing the Al-Quran and Hadith was then revised according to the suggestions and input of three validators, namely by inserting videos into the e-module without using a link to make it more efficient.

A cover and an instruction manual for the module precede the developed e-

module. Instructions for using the e-module are placed on the first page when opening the cover. It can be seen in Figure 1-2. Instructions for using e-modules are used to make it easier for students to use e-modules so that students can easily follow the stages in studying the material in the e-modules presented (Gevi & Andromeda, 2019).

Figure 1 The Appearance of The E-Module When Accessed via A Laptop/PC Device

Figure 2 The Appearance of The E-Module When Accessed via A Smartphone

E-modules can be accessed using all devices with the help of search applications such as *Google Chrome, Opera, Microsoft Edge* or similar applications. Because it only uses a search application, the memory usage on the device used by students will depend on the application they use. So that the size of the memory used when accessing is relatively small. This will, of course, make it easier to access e-modules and reduce the problem of limited device memory used by participants (Fauzy et al., 2021).

E-modules use learning media such as pictures and videos to make it easier for students to understand the learning material. Learning media will make the material more interesting, effective and efficient and provide new student experiences (Tahel & Ginting, 2019).

The e-module, of course, provided learning media. In accessing the media or other things contained in the e-module, a navigation button is used to direct the user to the page or link to be addressed (Siddik & Kholisho, 2019). Navigation buttons are also expected to help streamline the time used when using e-modules so that students do not need to open e-modules sheet by sheet-like print modules.

The speed of access made by the user depends on the RAM and Processor on the device used, so its use depends on the type of search engine used (Abdiati et al., 2021). In accessing, of course, it cannot be separated from bugs and errors; this is a common thing that happens to *the hosting domain* that researchers use, so researchers must check for *bugs* and *errors* so that they can be used by users (Hermawan et al., 2020).

The learning materials have been adjusted to the indicators that have been made. Where indicators are markers of achieving basic competencies that include students' knowledge and skills (Dacholfany et al., 2020). The correctness of the concept in the e-module has also been adapted to the 2013 Curriculum. The correctness of the concept is an absolute requirement that a teaching material must meet because if the concept presented is wrong, students will get the wrong understanding (Rusianti & Hadjranul Fatah, 2019).

A concept map is a diagram that shows a relationship between one concept to another. Concept maps presented in e-modules can help students understand learning materials so that their learning outcomes increase (Fau, 2020).

Currently, teachers are emphasized to be more creative in teaching so that learning is not boring. To create this, teachers must innovate in using appropriate teaching methods. One of them is providing examples of questions and exercises in each sub-chapter to make it easier to understand the material (Yuliani et al., 2021). In developing this e-module, so that students are more motivated during the learning process, the e-module inserted media in the form of videos and pictures as teaching aids that can provide interesting learning (Nurrita, 2018).

A module is a teaching material that is systematically arranged so that users can use it independently, either with or without a teacher. The module is a teaching material whose contents are relatively short and specific and are arranged to achieve learning objectives. Modules usually have coordinated activities with materials, media and evaluation. The teacher also uses the module as a tool or supporting media in the teaching process. With the module, students can learn independently with their ability to absorb the subject matter (Triyono, 2021).

Along with the development of the modernization era, the non-standard Indonesian language is growing rapidly. The emergence of this non-standard language is phenomenal because it can shift the use of Indonesian, which follows the EYD. This is, of course, inseparable from the attention of researchers in developing e-modules to keep paying attention to the use of Indonesian following the EYD. In using Indonesian based on EYD, you must pay attention to the words that must be written so that people can understand and not cause misunderstandings in reading (Sudarmawan, 2018). Language plays an important role in children's cognitive development. Therefore children should be encouraged to develop language. In adolescence, vocabulary becomes increasingly abstract, and grammar becomes more complex (Naldi, 2018).

In terms of visual design, the researcher strives for the information conveyed in the e-module to be accepted by the reader. According to Yulius (2018), visual communication design is an important discipline to understand, which aims to convey messages or ideas visually through shapes, images, lettering, colour composition and *layout* (layout or appearance). Thus the idea can be accepted by the target recipient of the message.

In addition, researchers also pay attention to the layout, and this is to facilitate the preparation of a visual hierarchy, namely the order of priorities

to be displayed. Layout elements include lines, fields, illustrations, typography, colour, light and dark, texture and space.

On the front cover, the researcher developed it by paying attention to layout elements such as the line between the writing of "E-Modul with Al-Quran and Hadith" with the title of the material and between the title of the material and the name of the author and institution. Then the use of illustrations shows that the illustration presented is part of the phenomenon in the material being taught. Then use typography by making the words 'Impulse', 'Momentum' and 'Linear' the same width. This is done to take advantage of the available space on the cover so it looks full. In addition to the layout element, the cover also pays attention to the use of colour, namely black, white and red. The white colour between the dominant black is interpreted as light in the dark. It is used to motivate students that there is always hope in despair, and the colour red is interpreted as a strength for students to conquer the material to be presented.

In the content of the module the researcher pays attention to the use of lines and shapes in the content of the e-module. The line is used as a barrier in the location of the illustration and the material presented. The use of straight lines and *shapes* on the e-module makes the e-module look stable and calm. Then each phenomenon in the sub-material will be given an illustration to facilitate material delivery to students. The layout is also designed to have a manageable amount of-unused space.

In the use of letters, the researcher used the stanberry font to give a relaxed impression. The font size varies; according to the hierarchy in writing, the title is designed to have a *font* with a larger size than the subtitles and the body of the manuscript. This is to confirm the title, subtitle and content of the manuscript. In addition, certain colours are used in some of the writings to attract students' attention. The use of capital letters also varies. Some are used as the prefix of titles, sentences or other things that attract students' attention.

Judging from these indicators, the e-module containing the Quran and Hadith obtained a validation value of 84.88, which was categorized as very high, with a reliability of 0.97, which was categorized as very high, as well as getting suggestions for improvement in the video playback section. The validator requests that the video playback be done directly so that the video playback via the google drive link is removed and replaced by inserting the video into the e-module directly.

The practicality of this e-module containing the Quran and Hadith is measured from 18 student response questionnaires. Practicality obtained through student response questionnaires is reviewed through aspects of benefits, aspects of efficiency, and aspects of convenience. The result can be seen in Table 3.

Table 3 Practicality Scores

Aspect	Score	Category
Benefit	80.625	Very Practical
Efficiency	75.00	Practical
Convenience	80.50	Very Practical
Average	78.71	Practical

The practicality of the e-module containing the Al-Quran and Hadith is viewed from the student response questionnaire. The questionnaire plays a role in knowing how much efficiency, benefit, and ease of access students get during and after using the electronic module.

Viewed from the aspect of benefits, 87.5% of students were helped in participating in physics learning by using this electronic module, and 85% of students stated that the use of e-modules made the material studied easier. 77.5% of students stated that learning physics by

using this e-module made the learning atmosphere in the classroom not boring, 72.5% of students stated that this e-module increased motivation to study impulse and linear momentum material, 75% of students stated that the use of this electronic module made understanding the material of impulses and momentum easy. 75% of students stated that they found many concepts in the material of impulse and linear momentum independently in this electronic module, 90% of students stated that the Al-Quran and Hadith verses used motivated them to study learning materials, and 82.5% of students stated that e -This module helps in self-study. So, when viewed from the benefits aspect, the e-module containing the Al-Quran and Hadith has an average practicality value of 80.63%. So, the e-module used is practical.

E-modules containing the Qur'an and Hadith have a very high practical value from the aspect of benefit, which cannot be separated from the systematic preparation and the provision of sample questions and practice questions so that students can study independently, then use interesting media and use Al-Quran verses and Hadith. This is in line with the research of Herdianto, Putra, & Anggoro (2018) that the module has benefits if students have the opportunity to study independently and have the opportunity to test their abilities by doing practice questions in the e-module. With the existence of learning media, the material will become more interesting, effective and efficient and provide new student experiences (Tahel & Ginting, 2019). Using Al-Quran verses will motivate students to learn (Agusti et al., 2019).

From the efficiency review, 70% of students stated that understanding the material did not take much time, 85% stated that learning was completed on time after using this e-module, 85% stated that the use of this e-module saves battery power, 60% stated that the use of this e-module This e-module is efficient in using internet quota and 75% states that *loading* animations, videos, images, *links*, and pages on this electronic module do not take much time. So, when viewed from the aspect of efficiency, the e-module containing the Al-Quran and Hadith has an average practicality value of 75%. So the e-module used is practical.

The practical value of the efficiency aspect, which is included in this high category, is obtained in various ways, namely the use of language that is easy to understand and systematically arranged so that the material being studied can be easily understood (Thalib et al., 2020), then by accessing e-modules that can be accessed using a smartphone search application so that the use of battery and internet quota is relatively small. *Loading* animations, videos, images, links and pages on this module is also quite fast. However, the speed of access the user makes also depends on the RAM and processor of the device used. By only using a search engine the loading speed depends on the type of search engine used (Abdiati et al., 2021).

From a review of the convenience aspect, 82.5% stated that this electronic module uses language, words, sentences, and paragraphs that make it easier to understand the learning material, 82.5% stated that the size of the writing in this electronic module facilitates the learning process, 82.5% stated that this electronic module could be easily accessed anytime and anywhere than a printed book, 80% said that this electronic module could be accessed easily on various networks (Wi-Fi, 3G, or 4G), and 75% of animations, videos, pictures, nor the links presented in this electronic module do not make it easier for me to understand the learning material.

In developing this e-module containing the Al-Quran and Hadith, the use of Indonesian must pay attention to EYD so that the words that must be written can be understood by people and

do not cause misunderstandings in reading (Sudarmawan, 2018). Language plays an important role in children's cognitive development. Therefore children should be encouraged to develop language. In adolescence, vocabulary becomes increasingly abstract, and grammar becomes more complex (Naldi, 2018).

In terms of visual design, the researcher strives for the information conveyed in the e-module to be accepted by the reader. According to Yulius (2018), visual communication design is an important discipline to understand, which aims to convey messages or ideas visually through shapes, images, lettering, colour composition and *layout* (layout or appearance). Thus the idea can be accepted by the target recipient of the message.

The use of media in e-modules certainly cannot be separated from internet access, so the use of internet quota will inevitably be more. Of course, there are concerns in this regard because, as discussed previously, it relates to the socioeconomic conditions of students. However, with an e-module design that can be accessed with a search application on each smartphone, the use of the internet quota will be at most the student's ability.

In determining effectiveness, it is measured using the student learning outcomes test results. The learning outcomes test data were analyzed by calculating the difference between the *pretest* and *posttest* to use it as a module's effectiveness score. The result can be seen in Table 4.

Table 4 Effectiveness Scores Based on N-Gain Scores

Pretest	***Posttest***	***N-gain***
50.15	88.70	0.79

The role of e-modules containing Al-Quran and Hadith in effectiveness is by presenting sample questions, practice questions, and evaluation questions equipped with solutions and answer keys that help students learn and practice independently. The presentation aims to guide students in dealing with learning outcomes tests. The learning outcome test comprises ten questions in the form of an essay. The learning outcomes test consists of questions about understanding concepts and solving problems.

Based on the pretest and posttest results, students were able to get an average point increase of 39. Before using the e-module containing the Al-Quran and Hadith, students only got 50. Then after using the e-module in learning, students got average points The average is 89. Overall, students have been able to work on the pretest questions of 2 to 7 items which are questions about the sub-material of the concept of impulse and momentum and the sub-material of the law of conservation of momentum. The duration of working on the learning outcomes test questions is 120 minutes, so students can work on 1 question in 12 minutes. This is done to give students time to think. More time will prevent students from rushing so that they make mistakes in processing (Fridanianti et al., 2018).

The implementation of the research that coincided with the end-of-semester exams also affected the learning outcomes test. The condition of students who have completed UAS causes students to no longer be haunted by anxiety, worry, tension and other uncomfortable feelings. So that student are concentrated on the research process carried out. This follows the research of Astuti, Susilo, & Sari (2018), which states that learning concentration affects student learning outcomes.

In determining students' learning motivation, it is measured using the ARCS motivation questionnaire (*Attention, Relevance, Confidence* and *Satisfaction)*. The ARCS questionnaire data was then analyzed by calculating the difference between the pretest and

posttest to use it as a score for students' learning motivation. The result can be seen in Table 5.

Table 5 Students' Motivation Scores

Questionnaire	*before*	*After*	*N-gain*
A	73.00	88.00	0.52
R	75.00	89.00	
C	74.00	86.50	
S	73.13	84.38	

In learning that is carried out using e-modules containing the Qur'an and Hadith, in addition to using interesting learning media, the researchers also use verses from the Qur'an and Hadith that contain motivation which is then inserted in several parts the page on the e-module repeatedly. So, that each sub-chapter contains verses from the Qur'an and Hadith. The verses of the Koran and Hadith used include QS Al-An'aam verse 162, QS Al-Insyirah verse 5 and HR Muslim number 2699.

Motivation broadly refers to what people want, and what they choose to do and are committed to doing. One of the motivation models is the ARCS motivation model. According to Keller (2010), ARCS stands for *Attention, Relevance, Confidence* and *Satisfaction*. These are divided into four categories that represent the various characteristics of motivation that exist in each individual.

In this study, students' learning motivation was calculated from the ARCS motivation questionnaire, which contained attention, relevance, hope and satisfaction. After students fill out the questionnaire, it is necessary to calculate the percentage of student motivation, the results of which can be seen in table 5. The data from calculating the percentage of students' motivation before and after in graph form is as follows in Figure 3.

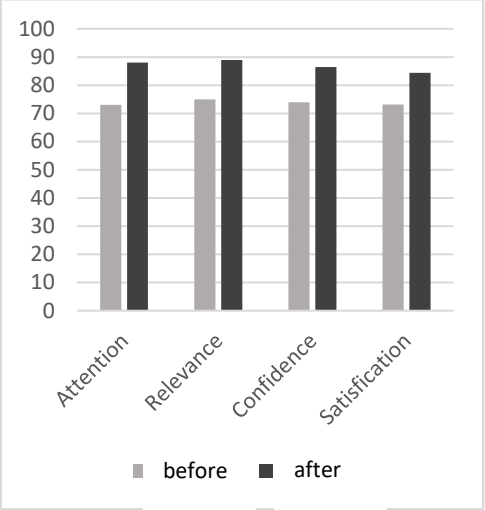

Figure 3 Graph of The Development of Student Motivation

Figure 3 shows that there is a change in students' motivation levels before and after using e-modules containing Al-Quran and Hadith tends to increase. The average increase based on the N-gain score is 0.52, categorized as moderate.

In the *Attention aspect*, the results of the questionnaire showed an increase in motivation from a score of 73 to 88, where students stated that they were interested in working on physics questions before being discussed by the teacher; this shows that the e-module containing the Al-Quran and Hadith can attract the attention of students without the presence of the teacher. Teacher figure. This is in line with the character of the e-module, namely self-instructional, where students can use the module without the teacher's presence. Then the students stated that they understood the material explained by the teacher; in this case, the teacher explained the material assisted by e-modules. This shows that the language used in the module is easy to understand so that students can easily understand the material's content. This is in line with Sudarmawan (2018) that using Indonesian that pays attention to EYD will make writing easy to understand and not cause misunderstandings in reading.

In addition, image and video media make it easier for students to understand the learning material presented in the e-module, which students in the response questionnaire state. According to Nurrita (2018), the use of image or video media makes students interested so that students can understand learning easily.

In the *Relevance aspect*, the questionnaire results showed an increase in motivation from a score of 75 to 89, where students stated that they knew the objectives and benefits of learning. They understood what they learned after doing the tasks on the e-module. This follows the learning model used, *Discovery Learning*, where students find their concepts in the material so that after the learning process ends, students can understand the benefits and objectives of the learning. When working on a given task, students use the previous material. This means that there is a relationship between before and after learning. Learning like this will motivate students (Nissa et al., 2021). After learning with e-modules, students stated they could relate the material's content to everyday life. Students can use examples from videos or images in the e-module to connect these phenomena to everyday life. According to Nissa et al. (2021), giving students an analogy can make them perceive that the learning will be useful for them.

In the *Confidence aspect*, the results of the questionnaire showed an increase in motivation from a score of 74 to 86.5. Students stated that they could complete the task independently. According to Nissa, Febrilia, & Astutik (2021), giving students some control over the learning process will give them an understanding that they are in control of their own success. Students state that they can find solutions to the problems they face, are diligent in doing assignments because they feel they can, are confident that they can complete the assigned tasks and are confident that they will succeed with the tasks that have been done. At the beginning of the sub-chapter, students will be presented with a page about what they must achieve. This is important because knowing what must be achieved determines their confidence when doing the tasks given (Chairun Nissa et al., n.d.). The E-module also inserts a verse from the Koran, Surah Al-Insyirah verse 6, which means "because after difficulty there is ease", to convince students that they can certainly do the given task.

Regarding *satisfaction*, the questionnaire results showed an increase in motivation from a score of 73.13 to 84.38. In this category, students stated that they gained new useful knowledge after doing the assignments on the e-module. This is related to the learning model that uses the *discovery learning model*. The *discovery learning model* provides an opportunity for students to process their knowledge and then, together with the teacher and friends, verify the concepts obtained so that students can find out the views of other students about the concepts that have been discussed. This process makes students feel that they have gained useful new knowledge. This is also supported by students' statements that the method used helps in understanding the material. After learning ends, students feel satisfied because they can complete tasks easily. Students find it easy to work on the questions in the e-module given. It is easier for students to give up when faced with questions that are considered difficult (Audina et al., 2017). In addition, students will tend to ignore the question. This can happen due to a need for more confidence in students' abilities. One of the solutions that researchers load in the e-module is to provide a stimulus before doing the task so that students can more easily understand the given task and use questions that follow the students' abilities.

CONCLUSION

Based on the development and test results, it is concluded that the e-module containing the Quran and Hadith on impulse and linear momentum material is suitable for use in the learning process. This is supported by: (1) The validity of the e-module containing the Al-Quran and Hadith based on the validation sheet filled out by three experts with very high category with very high reliability, (2) The practicality of the e-module containing the Al-Quran and Hadith based on the response questionnaire. Students are in a good category, (3) The effectiveness of e-modules containing Al-Quran and Hadith based on N-gain from high-category learning outcomes tests, (4) Students' learning motivation in using e-modules containing Al-Quran and Hadith in learning based on the *N-gain* score of the ARCS questionnaire is in the medium category. Thus, the e-module containing the Quran and Hadith on impulse and linear momentum material can be applied by teachers as an alternative to learning physics.

REFERENCES

Abdiati, A. D., Setiawan, S., & Supendar, H. (2021). Pemilihan web browser pada mobile menggunakan metode analytical hierachy process. *Jurnal Infortech*, *3*(1), 27–32.

Agusti, D., Rahmatan, H., & Sulastri, S. (2019). Pengembangan modul pembelajaran sistem reproduksi berazaskan al-quran/hadis untuk meningkatkan motivasi dan hasil belajar peserta didik. *EDUSAINS*, *11*(1), 132–140. https://doi.org/10.15408/es.v11i1.10270

Astuti, D., Susilo, G., & Sari, T. H. N. indah S. (2018). Pengaruh konsentrasi belajar dan kemandirian belajar terhadap hasil belajar matematika siswa kelas xi sma negeri 2 balikpapan tahun ajaran 2017/2018. *De Fermat: Jurnal Pendidikan Matematika*, *1*(2), 102–113.

Audina, M., Jamal, M. A., & Misbah. (2017). Meningkatkan pemahaman konsep siswa dengan menggunakan model guided inquiry discovery learning (gidl) di kelas x pmia-2 sman 3 banjarmasin improve understanding the concept of students with guided inquiry discovery learning model at class x pmia-2 sman. *Jurnal Ilmiah Pendidikan Fisika*, *1*(1), 40–52.

Budiariawan, I. P. (2019). Hubungan motivasi belajar dengan hasil belajar pada mata pelajaran kimia. *Jurnal Pendidikan Kimia Indonesia*, *III*(2), 103–111.

Dacholfany, M. I., Ningsih, N. S., & Aminin, S. (2020). Implementasi supervisi akademik dalam meningkatkan kualitas pembelajaran di sma dan smk se-kecamatan abung semuli lampung indonesia. *El-Ghiroh: Jurnal Studi Keislaman*, *18*(2), 179-193.

Fadlih, A. M., & Riyanto, P. (2019). Minat dan motivasi peserta didik penyandang disabilitas ketunarunguan terhadap mata pelajaran pendidikan jasmani kesehatan dan olahraga. *Musamus Journal of Physical Education and Sport (MJPES)*, *2*(01), 68–76.

Fau, Y. T. V. (2020). Validitas handout bergambar dilengkapi peta konsep pada materi sistem peredaran darah manusia untuk siswa kelas viii smp negeri 6 susua tahun pembelajaran 2018/2019. *Jurnal Education and Development*, *8*(1), 244-244.

Fauzy, A., & Nurfauziah, P. (2021). Kesulitan pembelajaran daring matematika pada masa pandemi COVID-19 di SMP Muslimin Cililin. *Jurnal Cendekia: Jurnal*

Pendidikan Matematika, *5*(1), 551-561.

Fridanianti, A., Purwati, H., & Murtianto, Y. H. (2018). Analisis kemampuan berpikir kritis dalam menyelesaikan soal aljabar kelas VII SMP N 2 Pangkah ditinjau dari gaya kognitif reflektif dan kognitif impulsif. *Aksioma: Jurnal Matematika dan Pendidikan Matematika*, *9*(1), 11-20.

Gevi, G. R., & Andromeda. (2019). Pengembangan e-modul laju reaksi berbasis inkuiri terbimbing terintegrasi virtual laboratory untuk sma/ ma. *Edukimia Journal*, *1*(1), 53–61.

Hamidah, H., Junaedi, I., Mulyono, M., & Kusuma, J. W. (2021). Kurikulum dan pembelajaran matematika di jepang dan di indonesia. *Jurnal Pendidikan Matematika (JPM)*, *7*(2), 95-105.

Herawati, N. S., & Muhtadi, A. (2018). Pengembangan modul elektronik (e-modul) interaktif pada mata pelajaran Kimia kelas XI SMA. *Jurnal Inovasi Teknologi Pendidikan*, *5*(2), 180–191.

Herdianto, H., Putra, R. W. Y., & Anggoro, B. S. (2018). Pengembangan modul berbantuan rumus cepat arimetika sosial dan perbandingan. *Nabla Dewantara*, *3*(2), 17-30.

Hermawan, L., & Ismiati, M. B. (2020). Pembelajaran text preprocessing berbasis simulator untuk mata kuliah information retrieval. *Jurnal Transformatika*, *17*(2), 188-199.

Jamil, M. M. (2019). Optimalisasi model ARCS dalam pembelajaran saintifik untuk meningkatkan motivasi belajar peserta didik pada peminatan mata pelajaran geografi di kelas matematika ilmu alam. *IJIS Edu: Indonesian Journal of Integrated Science Education*, *1*(1), 7-24.

Keller, J. M. (2010). *Motivational design for learning and performance: The ARCS model approach. Florida*. Florida State University.

Misbah, M., Khairunnisa, Y., Amrita, P. D., Dewantara, D., Mahtari, S., Syahidi, K., ... & Deta, U. A. (2021). The effectiveness of introduction to nuclear physics e-module as a teaching material during covid-19 pandemic. In *Journal of Physics: Conference Series*, 1760(1), 012052.

Mastuang, M., Misbah, M., Yahya, A., & Mahtari, S. (2019). Developing the physics module containing quranic verses to train the local wisdom character. *Journal of Physics: Conference Series*, *1171*(1), 1–7.

Muhammad, N., Hamid, F., Misbah, M., & Dewantara, D. (2021, November). E-module on elasticity of solids topic through cooperative learning to improve learning outcomes and motivation: Validity aspects. In *Journal of Physics: Conference Series*, 2104(1), 012015.

Naldi, H. (2018). Perkembangan kognitif, bahasa dan perkembangan sosioemosional serta implikasinya dalam pembelajaran. *Jurnal Socius: Journal of Sociology Research and Education*, *5*(2), 102.

Nissa, I. C., Febrilia, B. R. A., & Astutik, F. (2021). Perspektif siswa terhadap e-learning berdasarkan model motivasi ARCS. *Media Pendidikan Matematika*, *9*(1), 19-33.

Nurindah, R., Nurochmah, A., & Hurri, I. (2018). Pengaruh multimedia terhadap motivasi dan hasil belajar siswa pada sekolah dasar. *Jurnal Dinamika Manajemen Pendidikan*, *3*(1), 43–48.

Nurrita, T. (2018). Pengembangan media pembelajaran untuk meningkatkan hasil belajar siswa. *MISYKAT: Jurnal Ilmu-ilmu Al-Quran, Hadist, Syari'ah dan Tarbiyah*, *3*(1), 171.

Peranti, P., Purwanto, A., & Risdianto, E. (2019). Pengembangan media pembelajaran permainan mofin (monopoli fisika sains) pada siswa sma kelas x. *Jurnal Kumparan Fisika*, *2*(1), 41-48.

Putra, D. S., Lumbantoruan, A., & Samosir, S. C. (2019). Deskripsi sikap siswa: adopsi sikap ilmiah, ketertarikan memperbanyak waktu belajar fisika dan ketertarikan berkarir di bidang Fisika. *Tarbiyah: jurnal ilmiah kependidikan*, *8*(2), 91-100.

Puwardana, I. W., & Suastika, I. N. (2021). Pengembangan instrumen penilaian berbasis hots pada materi pengolahan data dalam kehidupan sehari-hari untuk siswa kelas vi sd. *Jurnal Penelitian Dan Evaluasi Pendidikan Indonesia*, *11*(2), 147-156.

Rusianti, S., & Fatah, A. H. (2019). Analisis kesesuaian konsep ikatan kimia pada buku kimia kelas x sma/ma terhadap silabus kurikulum 2013 dan penyusunan makro wacana. *Jurnal Ilmiah Kanderang Tingang*, *10*(2), 184-200.

Saharsa, U., Qaddafi, M., & Baharuddin, B. (2018). Efektivitas penerapan model pembelajaran problem based learning berbantuan video based laboratory terhadap peningkatan pemahaman konsep fisika. *JPF (Jurnal Pendidikan Fisika) Universitas Islam Negeri Alauddin Makassar*, *6*(2), 57-64.

Siddik, B., & Kholisho, Y. N. (2019). Pengembangan modul pembelajaran perakitan komputer berbasis multimedia interaktif. *EDUMATIC: Jurnal Pendidikan Informatika*, *3*(1), 13.

Sudarmawan. (2018). Metode latihan dapat meningkatkan kemampuan menulis surat resmi bagi peserta didik kelas viii-4 smpn 3 pasir penyu tp 2014/2015. *Jurnal Pendidikan Tambusai*, *2*(5), 1345–1356.

Suyidno, S., Zainuddin, Z., Misbah, M., Salam, A., Mastuang, M., Sasmita, F. D., ... & Ramadhan, R. (2019). Pelatihan media berbasis e-learning menggunakan kahoot! untuk guru fisika. *Bubungan Tinggi: Jurnal Pengabdian Masyarakat*, *1*(1), 9-14.

Tahel, F., & Ginting, E. (2019). Perancangan aplikasi media pembelajaran pengenalan pahlawan nasional untuk meningkatkan rasa nasionalis berbasis android. *Teknomatika*, *9*(02), 113-120.

Thalib, A., Winarti, P., & Sani, N. K. (2020). Pengembangan modul praktikum serli (discovery learning) untuk pembelajaran sains di sekolah dasar. *Profesi Pendidikan Dasar*, *1*(1), 53–64.

Triyono, S. (2021). *Dinamika penyusunan e-modul*. Penerbit Adab.

Wahyuni, R. (2020). Efektivitas implementasi lesson study learning community dalam meningkatkan kualitas pembelajaran. *Equity In Education Journal (EEJ)*, *2*(1), 11-18.

Wati, M., Apriani, R., Misbah, M., Miriam, S., & Mahtari, S. (2021). Pengembangan e-modul suhu dan kalor bermuatan kearifan lokal melalui aplikasi sigil. *Jurnal Inovasi dan Pembelajaran Fisika*, *8*(1), 112-121.

Wulandari, D. D., Adnyana, P. B., & Santiasa, I. M. P. A. (2020). Penerapan e-modul interaktif terhadap motivasi dan hasil belajar siswa pada pembelajaran biologi kelas X. *Jurnal Pendidikan Biologi Undiksha*, *7*(2), 66-80.

Yuliani, R. E., Heru, H., & Wahidati, W. (2021). Modul peserta didik berbasis pendekatan matematika realistik kelas iv sekolah dasar. *Mathline : Jurnal Matematika Dan Pendidikan Matematika*, *6*(1), 81–96.

Yulius, Y. (2018). Pengaplikasian golden ratio pada perancangan logo dalam perspektif desain komunikasi visual. *Besaung: Jurnal Seni Dan Budaya*, *3*(3), 94–99.

Zaharah, Z., & Susilowati, A. (2020). Meningkatkan motivasi belajar peserta didik dengan menggunakan media modul elektronik di era revolusi industri 4.0. *Biodik*, *6*(2), 39–52.