Integration of Technology in Learning Activities: E-Module on Islamic Religious Education Learning for Vocational High School Students

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ABSTRAK

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1. INTRODUCTION

Education is one of the essential functions for individuals, groups, communities, national culture, nation, and state (Lase, 2019; Rustiana, 2011; Suryana, 2017). School as a form of a formal educational institution is an excellent place to internalize tolerance through a series of processes in extracurricular and extracurricular activities (Partovi & Razavi, 2019; Sun, Ruokamo, Siklander, Li, & Devlin, 2021). Therefore, education is one of the essential parts that create a new generation of quality. In the implementation of the education system, it will appear that various other systems are interconnected. Through education can also increase the sense of tolerance in students. Tolerance according to the term means respecting, allowing, allowing...
other opinions, views, beliefs, habits, behavior and so on which are contrary to the founder himself. For example religion, ideology, race (Banshchikova, Solomonov, & Fomina, 2015; Fahmi, Mujahidin, & Rahman, 2021). Tolerance is an attitude of respect, allowing and accepting others to have religion, belief, opinion and opinion that is different from others (Juaraescio, Felton, Borges, Manasse, & Murray, 2016; Juwita, Salim, & Winarno, 2018). Meanwhile, indicators of tolerance in the high school environment, both junior high school and high school or vocational school, consist of not disturbing friends who have different opinions, respecting friends who have different customs and customs, make friends with friends from other classes, provide opportunities for friends to have different opinions, and make friends with other friends of different ethnicity, religion, and ethnicity (Wardhani & Muryaningsih, 2019; Dayanti, 2017).

However, the low attitude of tolerance between others will create a gap between individuals, which, if left unchecked in the long term, will present a potential for division and jealousy in the community (Berggren & Nilsson, 2016; Browne-Nuñez et al., 2015; Feldman, 2015). Based on the preliminary study results, the facts obtained through observations and interviews indicate that students have not been able to see environmental problems with a positive and proactive attitude. Based on observations that have been made in January 2021 using questionnaires that have been distributed to 178 students from public vocational secondary schools (SMK Negeri) 1, 2, and 3 Pati, two classes were taken in each school. Some students still need to instill tolerance towards others. This is indicated by students who still put forward their egos, such as selfishness in opinion, only 64 students or 36% who do not put forward their ego, and the rest still put forward their ego unilaterally. In addition, the habit of having opinions is not on time, where when the teacher is delivering subject matter in front of the class it is found with a percentage of 39% of 178 students, this is a reflection of a form of non-moral attitude that needs to be corrected by showing tolerant behavior to anyone who is speaking in front of the class. Did not interrupt the conversation, likewise with the attitude and style of joking students who still use harsh words and corner other friends. This form of cornering can be in the form of a deficiency possessed by other students or a mistake that the student has made. These things create harmony between students so that there will be mutual hatred and division between them. Even though the percentage is not that big, this is a counter-productive seed to get more substantial later.

One of the subjects that can be used as a pillar to maintain and convey the values of tolerance is the subject of Islamic Religious Education (Rohman, 2017; Saputro, 2020). Religious Education Subjects are conscious and planned efforts in preparing students to recognize, understand, appreciate, and believe in the teachings of the Islamic religion, accompanied by guidance to respect adherents of other religions about inter-religious harmony so that national unity and unity are realized (Dute, 2017; Nata, 2020). In addition, Islamic religious education subjects can also be a solution in increasing student tolerance through an integrative and varied dialogue and innovative learning process for Islamic Religious Education adapted to the development and progress of the times (Nata, 2020; Faozan, 2020). Therefore, Islamic religious education has an essential role in creating student tolerance, so it is necessary to optimize the various components in learning activities in the classroom. Good learning will be able to increase tolerance in students.

One way to create good learning is to use learning media to help students understand the learning material. In conveying information, a tool is needed to become an intermediary in assisting the delivery of information (Qureshi, Khan, Raza, Imran, & Ismail, 2021). Learning media can be said as one of the tools or learning materials needed by students to provide a stimulus in the form of attention, interest, thoughts, and feelings of students in learning activities to achieve learning objectives by delivering information packaged in the form of learning. Become more attractive (Puspitarini & Hanif, 2019; Prasetyo et al., 2020; Wulandari, 2020). One of the media that students can use is E-module. E-Modules are one of the media or learning resources that encourage the independence of students who study, or students learn independently, meaning that students' awareness and activeness in learning are a teacher's priority (Husnulwati, Sardana, & Suryati, 2019; Komikesari et al., 2020; Seruni et al., 2020). The use of electronic books or e-modules is more efficient, and distribution is more economical (Logan, Johnson, & Worsham, 2021; Suyasa, Divayana, & Kristiantari, 2021; Syahroni, Dewi, & Kasnui, 2016).

The advantages of using e-modules in learning, among others, can make the learning process more interesting because many of the designs presented are equipped with animations (Budiaman et al., 2021; Bushati et al., 2012). In addition, the use of e-modules can also facilitate understanding of the material through images and video videos videos (S.Sirate & Ramadhan, 2017; Kimianti & Prasetyo, 2019). The advantages of e-modules compared to print modules are that they are interactive, making it easier to navigate, which allows displaying images, audio, video, and animation, and is equipped with formative quizzes that can provide automatic feedback directly (Serevina et al., 2018; Yasa, Chrisyarani, & Mudiono, 2018). In addition, the benefits of e-modules are also able to increase student motivation, tools or facilities are available to conduct evaluations, making learning quality more efficient (Weng et al., 2018; Diarta et al., 2021; Azizah et al., 2020).
In this study, an innovation based on information and communication technology (ICT) in the form of an interactive e-module will be developed, which is suitable for use as a learning medium for Islamic Religious Education subjects in vocational high schools Salatiga region, Central Java. This study aims to develop an E-Module for Islamic Religious Education Learning for Vocational High Schools. It is hoped that this E-Module can be implemented as an innovation in the form of independent learning resources as well as for classical learning, as an effort to facilitate students to improve competence, one of which is relevant to the problems raised in this study and refers to the results of preliminary studies, namely increasing student tolerance. E-Module makes it easier for students to learn a material because it is easy to carry anywhere and anytime. Moreover, the developed e-module has a high level of accessibility because it can be accessed via tablets, smartphones, and computers.

2. METHOD

This research is research and development (R&D) research. This research approach is in line with the research objective, namely developing electronic module products that are suitable for use in Islamic religious education learning. Meanwhile, the development model that researchers will adopt is the ADDIE model, which consists of stages, Analysis, Design, Development, Implementation, and Evaluation (Rosmati, 2019). However, this research only focuses on the validation test of the product being developed, which is included in the Development stage. At this stage, there will be a revised electronic module manufacturing process based on expert input. This stage is to validate adobe flash-based learning media. This is in line with the research objective, namely developing electronic-based module products that are suitable for use in Islamic religious education learning to increase student tolerance. The following are research and development procedures that focus on the product development stage.

![Figure 1. Research design using the ADDIE model](image)

The sample of this research is one material expert validator, two media expert validators, and three vocational high schools Islamic Religious Education Subjects, Teachers, which, if added up, have six samples. The data collection technique is a non-test technique, which aims to measure the quality level of the developed electronic module learning media. The data collection instrument used a validation questionnaire, which consisted of material expert validation, media expert validation, and validation by the teacher. The instrument validity technique uses expert judgment, where an expert from each type of instrument is selected to be consulted about the quality and validity of the learning media selection questionnaire from various points of view (Sugiyono, 2018). The data obtained from the questionnaire results will then be analyzed. In this study, the data analysis used descriptive percentage and category techniques to describe the feasibility of the electronic module. The following is a conversion table for the eligibility criteria for the electronic module referring to the research (Bustani, S., Asrowi, & Adianto, 2019).

<table>
<thead>
<tr>
<th>Eligibility Level</th>
<th>Interpretation</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>82 – 100%</td>
<td>Very Good</td>
<td>Very Feasible</td>
</tr>
<tr>
<td>63 – 81%</td>
<td>Good</td>
<td>Feasible</td>
</tr>
<tr>
<td>44 – 62%</td>
<td>Enough</td>
<td>Not Worth It</td>
</tr>
<tr>
<td>25 – 43%</td>
<td>Not Good</td>
<td>Not Feasible</td>
</tr>
</tbody>
</table>

3. RESULT AND DISCUSSION

Results

This research is an electronic module product with interactive elements that are practical and attractive and suitable for learning Islamic religious education. The selection and determination of the material are carried
out by reviewing the curriculum of the Islamic religious education subject group, syllabus, lesson plans, and student handbooks in the hope that electronic modules are developed according to the needs and characteristics of the material. Learning media in this electronic module format can be accessed online by entering the URL address: tes.ahmadnurfahmi.com. Students can access all the contents of the electronic module, starting from materials, videos, animations, to practice questions and games through the website. The following is a display of developing an electronic module for learning Islamic religious education to increase students' tolerance, which can be accessed online.

![Figure 2. E-module welcome screen](image1)

![Figure 3. E-module main menu display](image2)

![Figure 4. Video display of material on E-module questions](image3)

To obtain information regarding the feasibility of the electronic module, an expert assessment is required. Material experts consist of lecturers of Islamic religious education and teachers of Islamic religious education at the secondary vocational level who conduct a comprehensive assessment of Islamic religious education materials. In the following table 2, the results of the validation by material experts will be presented.

<table>
<thead>
<tr>
<th>No.</th>
<th>Aspect</th>
<th>Percentage (%)</th>
<th>Interpretation</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Content Eligibility</td>
<td>95%</td>
<td>Very good</td>
<td>Very Feasible</td>
</tr>
<tr>
<td>2.</td>
<td>Serving Eligibility</td>
<td>97.5%</td>
<td>Very good</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Contextual Eligibility</td>
<td>96.4%</td>
<td>Very good</td>
<td></td>
</tr>
</tbody>
</table>

Total Earnings for All Aspects 96.1% Very good

Based on table 2, it can be seen that the validation score, which is converted into a percentage in the content feasibility aspect, gets 95%, then in the presentation feasibility section, it reaches 97.5%, and in the last aspect, contextual feasibility, it gets 96.4%. Overall the total score on all aspects, if averaged in the form of a percentage, gets a score of 96.1%, which is included in the very good category. Thus, the material presented in the electronic module of Islamic religious education subjects includes appropriate material for students. The teacher carries out the following assessment as a learning practitioner. In this section, three teachers of Islamic...
religious education subjects will provide an assessment of the e-module. Based on the results of the assessment conducted by subject teachers on the feasibility of e-modules, information was obtained that, overall, the total score was 83.3% which was included in the very good category so that referring to the feasibility conversion table had a very feasible decision as a learning medium. These results cannot be separated from the role of each aspect of the assessment. This shows that the e-module developed is very feasible materially and practically for use in the learning process. The validity of the material as a prerequisite for the feasibility of learning media is essential. The material presented to students must be factual, actual, and contextual, some of these points can be a benchmark in assessing the feasibility of assessed teaching material by an expert (Oksa & Soenarto, 2020). After assessing the quality of the material feasibility, the next step in this research is to assess the quality of the developed e-module program. This assessment will be carried out by media experts, consisting of two validators with an educational background in Educational Technology. The media expert's assessment of the developed e-module product as a whole obtained an average score of 95.1% which was included in the very good category so that it was entitled to a very decent decision in terms of the program or media format. These results indicate that the components that make up the electronic module have met the requirements as a learning media, where in each aspect it can be seen that there is a match between design, presentation, ease of use and language use so that it becomes a viable media unit. As revealed in several studies which stated that learning media products must go through validation by an expert in the field of learning media, this is intended so that the developed media fit with the many elements that it will be able to increase the attractiveness and attention of students to learn, and will be able to increase student performance (Riyanto et al., 2020; Ran & Jinglu, 2020).

Discussion
As research conducted by which states that one of the innovations in physics learning can be done through the development and use of electronic-based modules, the results of the study also show that electronic modules (e-modules) obtain decisions from assessment results that are included in the appropriate category, and in their implementation are proven to be capable improve critical thinking skills of high school students. In addition, other research also shows the positive impact of using e-modules in the learning process, this is in line with research revealed by Resita & Ertikanto (2018) that the use of e-modules can improve students’ ability to represent abstract material, from the results of the study presented that students are considered easier to understand the concepts of the material being taught through changes from one form to another form of representation, besides that the electronic module product design is also able to present text, image, symbolic, video, and animation representations which have implications for increasing attention and interest in learning students.

These results indicate that both media experts, material experts, and teachers decide that learning media with an e-module format for Islamic religious education subjects is included in the appropriate category to be used as learning media. E-modules for learning can improve students’ scientific literacy (Darmayasa, Jampel, & Simamora, 2018; Herawati & Muhantadi, 2018; Kimianti & Prasetyo, 2019a). The use of e-modules in various learning processes and implemented in various subjects is proven to improve students’ academic achievement (Budiman et al., 2021; Istuningsih, Baedhowi, & Sangka, 2018). Other research also shows that electronic modules (e-modules) are proven to improve students' critical thinking skills (Diantari et al., 2018; Latifah, Ashari, & Kurniawan, 2020). In addition, it is considered easier to understand the concept of the material being taught through changing from one form to another, besides that the electronic module product design is also able to present text, images, symbolic, video, and animated representations which have implications for increasing students’ attention and interest in learning (Imansari & Sunaryatiningsih, 2017; Wijayanti et al., 2016).

As a form of digital media innovation, e-modules can also be integrated with various learning approaches, such as the research of that the electronic module can be integrated with the guided inquiry learning model, the results of the study also state that the electronic module which is integrated with the guided inquiry learning model is included in the appropriate category to be used as a learning medium, and is considered quite effective as a tool to improve student learning outcomes. Another study conducted by which states that the developed electronic module is integrated with local wisdom, this is expected to be able to improve the character of students. Susanti et al. (2020) in his research succeeded in integrating e-modules with a contextual-based learning approach, based on the results of the effectiveness test of contextual elements contained in e-modules that contributed to increasing student interest in learning, in addition to the components owned by e-modules that were considered feasible and practical by all experts and practitioners involved in the assessment process.

As a form of digital media innovation, e-modules can also be integrated with various learning approaches, electronic modules can be integrated with learning models, and the research results also state that electronic modules integrated with guided inquiry learning models are included in the appropriate category to be used as learning media and assessed quite effective as a tool to improve student learning outcomes (Diantari et al., 2018; Handayani, Elvinawati, Isnaeni, & Alperi, 2021; Kimianti & Prasetyo, 2019b). Electronic modules can improve student character (Aryawan, Sudatha, & Sukmana, 2018; Puspoko Jati, Ismanto, & Sulasmono, 2019).
E-modules with a contextual-based learning approach, based on the results of the fitness test of contextual elements contained in e-modules that contribute to increasing student interest in learning, in addition to the components possessed by e-modules that are considered feasible and practical by all experts and practitioners who involved in the assessment process (Herawati & Muhtadi, 2018; Laili, Ganefri, & Usmeldi, 2019).

Overall, the E-module that has been developed is one of the many innovations which has several primary advantages, namely being able to facilitate independent learning, containing all formats of material both in the form of visual and narrative texts, not depending on other teaching materials, including adaptive media, and user-friendly (Bdiwi et al., 2019; Kimianti & Prasetyo, 2019). It is important to emphasize that the developed E-module has been adapted to identifying needs, namely, the low tolerance of students and the development of the times. It is hoped that through the results of the analysis of research findings with previous research, this e-module will be able to increase students' tolerance attitude where the nature of the e-module flexible learning approaches can be integrated with various learning approaches that support the strengthening of teaching materials that have been adapted to the characteristics of the material in order to increase student tolerance, several learning approaches that can be integrated with e-modules are the integrated learning approach, role-playing based learning, and the role of Islamic religious education subjects themselves (Dute, 2017; Hutauruk & Situmeang, 2019; Marlia, Fauziana Ridwan, & Priatna, 2018).

Therefore, it is hoped that the implementation of digital-based learning media innovation is expected to create an effective learning atmosphere. Learning media has benefits in increasing and directing students' attention to always be focused on the subject matter so that it can motivate students to take part in learning activities, increase direct interaction between students with the learning environment and teachers, and allows students to learn independently according to their learning styles (Andriyani & Suniasih, 2021; Diyantari, Wiyasa, & Manuaba, 2020; Gunawan, Sahidu, Harjono, & Suranti, 2017). Thus, the product of this research in the form of an e-module can be an innovation in the application of digital learning media for learning activities, especially for Islamic religious education subjects, which have significant contributions in increasing tolerance attitudes and other positive attitudes. However, considering that this only focuses on the development and assessment of e-modules, it is necessary to test the products that have been developed empirically. This research has limitations in the scope of material and accessibility, which still requires an internet connection. It is hoped that other researchers can develop similar media for other subjects and can develop it with an offline version so that when accessing material or electronic modules does not require an internet connection.

4. CONCLUSION

This study indicates that the learning media in the electronic module format meets the criteria and gets excellent qualifications. This electronic module is suitable for use in the learning process. It is recommended for teachers to use electronic modules to help students understand the learning material.

5. REFERENCES


Inspiratif Pendidikan, 6(2), 316. https://doi.org/10.24252/ip.v6i2.5763.


