

# Development of Sharia Economy E-Module Contextual Based on Student Economic Science Study Program Medan State University T.P 2021/2022

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**Abstract.** This study aims to determine the feasibility and effectiveness of contextual-based Islamic economics e-modules for Medan State University students. Furthermore, based on the results of the feasibility of material expert validation for e-modules, namely 86.67% in the very valid category and 81.67% media expert validation in the very valid category and 83.33% design expert validation in the very valid category. . In addition, based on the results of individual trials, small groups, and field tests are very valid and the results of the t test where the value of sig 2 tailed is  $0.00 < 0.05$  in this case there are differences in learning outcomes before and after being given treatment. So it can be concluded that contextual-based Islamic economics e-modules for students of the Medan State University economic study program are feasible and effective to be used as teaching materials or student learning resources.

**Keywords:** E-Module Development, Sharia Economics, Contextual Based, Sigil

## 1 Introduction

Education is an important component in life, especially in the era of the industrial revolution 4.0, education is increasingly advanced and growing rapidly. Many things are marked by the progress of the system, including learning that is starting to be sophisticated, effective and efficient. Learning is also the most important thing to support the knowledge of students where in this case to support the learning system an entity is needed, both the quality of educators and students, including the teaching materials. One of the supporters of varied learning in the current era is to have technology-based teaching materials, such as e-modules, electronic books, and others.

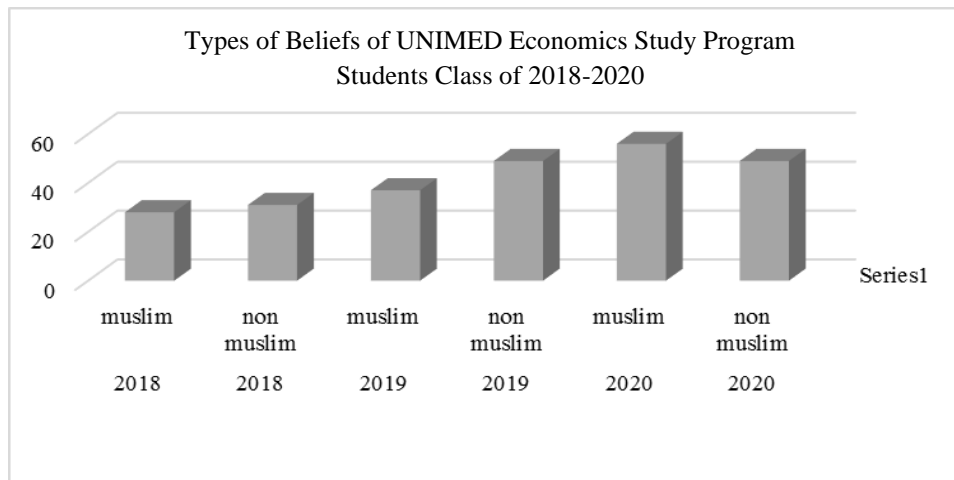
This is a challenge and a demand that is felt in this era of globalization through the advancement of technology in the world of education. Educators are required to be able to follow developments in this technological era. According to Medina Azizah (2020:

48) the advancement of technology cannot be avoided from life because the advancement of technology coincides with the advancement of a science.

An effective step to overcome the challenges of increasingly sophisticated technological developments, especially in the world of education, is that educators must be able to manage and utilize technology in learning. Educators must prepare efforts to increase competence and ability in managing electronic-based teaching materials, one of which is with the help of sigil software. The use of sigil software in the manufacture of materials can be adapted to changing ways of working in the technological era, in this case, requires maximizing teaching materials for learning. Teaching materials are part of a learning support device that can stimulate students' interest in learning. Kirana (2020: 82) explains teaching materials as learning resources needed by students and teachers who become tools in teaching. Anna Elvarita (2020:2) explains that teaching materials must be made according to the instructional rules and used in the learning process according to the students' circumstances and the learning strategies of the lecturers.

From the results of interviews with lecturers who teach Islamic economics courses, it is known that the facilities in the implementation of learning in the Economics Study Program only rely on books and journals as a means of supporting learning. As well as learning methods modeled lectures, discussions and questions and answers. And student learning outcomes in Islamic economics courses, obtained in the 2019/2020 FY, are said to be good. It is known that 25.5% got a very good score and 68.25% got a good score and 6.25% got a bad score. Although the average student is categorized as good, but it must be improved again so that it is more optimal. To maintain and improve learning outcomes for the better, there is a need for learning innovations including varied teaching materials to increase the quality of student learning outcomes. According to Novianti (2016: 4), teaching materials play an important role in determining learning outcomes. Furthermore, Rahmawati (2020:108) explains that teaching materials can motivate students' desires in the current era of globalization using interactive teaching materials.

On the other hand, based on observations that researchers found in the field, students of the Medan State University Economics Study Program found it difficult to follow Islamic economics subjects. This is based on the heterogeneity/diversity of beliefs or beliefs held by students. The data on the diversity of beliefs held by Economics Study Program students in 2018-2020 are:



**Fig.1.** Data on the type of belief of Economics Students, State University of Medan in 2018-2020

Furthermore, to add the effectiveness of student learning to student learning in Islamic economics courses, a learning model is needed in order to increase student success which is not only from the teacher or curriculum but also from the learning method. This method provides demands for students according to their cognitive, affective and psychomotor development. Learning activity can be seen in students' activities while studying, namely: visual and verbal activities, listening activities, writing, drawing, motor activities, mental activities, emotional activities (Sardirman, 2007). Dimiyati and Mudjiono (2006: 114) explain effectiveness as something that has an important role in each learning process. A learning model that makes students active, independent, responsible, has the initiative to recognize the need for learning resources, and implements skills and knowledge for life, namely the contextual learning model.

According to Nanik Rubiyanto, the contextual learning model (2010: 72) is the concept of learning to make it easier for teachers to convey material in real situations and make students associate their knowledge with daily application. Research GAP researchers on previous research found that there is research explaining scientific-based learning models are more significant on student learning outcomes compared to contextual-based learning models (Taufiq Akbar Tanjung, 2017: 47). Based on the description of this problem, the author will develop a module by applying a learning model to the e-module, namely contextual teaching and learning. The following research is entitled: "Development of Contextual-Based Islamic Economics E-Module on Students of the Economics Study Program, State University of Medan T.P. 2021/2022".

## 2 Research Results & Discussion

This research is Research and Development (R & D). The development model used refers to the ADDIE model which consists of 5 stages, namely analysis, design, development,

implementation and evaluation. In the ADDIE model, the first stage is performance analysis and needs analysis stage. After knowing the needs, then proceed to the second stage, namely design. The design made is expected to be able to answer whether the learning program that will be designed can overcome problems at the analysis stage. The third stage is the development stage, in which research will develop teaching materials according to the needs of students. The fourth stage is the implementation stage, namely the application or trial of the teaching materials that have been developed. The fifth stage is the evaluation stage, assessing whether teaching materials have met the quality of a product that is valid, practical and has a potential effect (Resmawan, 2020:5). Furthermore, the learning tools that will be developed in this research are in the form of Islamic Economics Learning E-Module on the material of fiscal policy in Islam, monetary policy in Islam and Islamic financial institutions.

### **3 Research results & discussion**

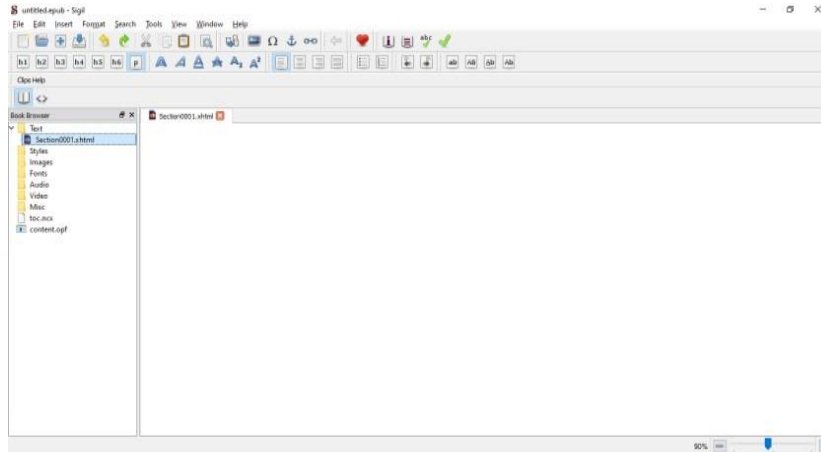
This research was conducted at the State University of Medan, Faculty of Economics, Study Program of Economics. The following research is a development research with the ADDIE model. The research product is the Contextual-Based Islamic Economics E-Modul. In the e-module development stage, it is validated and revised by a team of experts and the assessment of lecturers who support Islamic economics courses. Next, individual trials, small group trials and field trials were carried out.

#### **Analysis**

The analysis phase aims to get an initial picture related to the information on the learning process experienced by the research sample. The next stage is the analysis by interviewing the lecturer. This interview will make it easier for researchers to develop their products. From the results of interviews with lecturers who teach Islamic economics courses, it is revealed that they are not familiar with the sigil application and this is something new to hear considering that during the learning process they always use printed teaching materials and in this case require an e-module of Islamic economics with the help of the sigil application in the learning process. . Students also stated that they did not understand the sigil application, and explained if they needed an e-module with the help of the sigil application for learning. Because students need e-modules which can be accessed using Android or laptops where their use can be accessed either online or offline and as part of other learning resources in introductory courses in Islamic economics.

#### **Design**

The next stage in the development procedure of the ADDIE model is the design stage, this design stage includes the creation of contextual-based e-modules with the help of monetary policy materials in Islam, fiscal policy in Islam and Islamic financial institutions. This stage is carried out so that the e-module that develops maximum results with the following preparations :



**Fig. 2.** Display of e-module creation using the sigil application

### *Development*

The development stage is an advanced stage of the design that is formed to become a product. The product must be validated so that the product is suitable for use, validation from validators and lecturers in Islamic economics courses. The assessment is in the form of suggestions that become provisions in product revisions. Furthermore, validation of the development of contextual-based sharia economic e-modules is one of the steps used to validate a product. Validation is carried out by validators who have expertise in the field of the product being developed.

### *Implementation*

Implementation as a stage before the contextual-based sharia economic e-module is properly revised. The implementation was carried out in the Economics Study Program, Faculty of Economics, UNIMED with individual trials conducted by 5 students, small group trials conducted by 10 students, and field trials on Economics class B students found 35 students.

### *Evaluation*

The evaluation stage is carried out at each stage of the e-module development by researchers in order to obtain responses and inputs and then the e-module revision is carried out. At the development stage, evaluations related to the development of contextual-based sharia economic e-modules were carried out. Furthermore, the evaluation of the implementation stage of the contextual-based Islamic economics e-module in this case the results of the e-module trial developed for students of the Economics Study Program UNIMED. The evaluation was carried out in order to obtain student responses and learning outcomes after using contextual-based sharia economic e-modules with the help of the sigil application which aims to determine the practicality and effectiveness of the developed modules.

## 4 Results and Discussion

This study a e-module development using the ADDIE model. The research began with direct observation to UNIMED, namely by interviewing lecturers who teach Islamic economics courses and students of the Economics Study Program, State University of Medan. From the interview, it is known that the development of contextual-based Islamic economic e-modules has never been implemented and is in accordance with the ADDIE model, namely the analysis, the researchers analyze if contextual-based Islamic economics e-modules are needed in the Economics Study Program, State University of Medan. After getting an overview of the learning process of Islamic economics in the Economics Study Program, State University of Medan, the researcher continued his research step, namely designing an e-module for learning Islamic economics. Research related to the material of fiscal policy according to the Islamic view, Islamic monetary policy and Islamic financial institutions is one of the main topics of discussion in the e-module. In terms of media, the module was created using the Sigil application.

The next stage is the development of sharia economic e-modules, namely text, images, and videos. The initial e-module product was tested for evaluation and to obtain complete data for the material to revise the e-module. Aspects that are subject to revision are media feasibility, material presentation, and e-module design in order to obtain products that can be used by students of economics study programs on fiscal policy in Islam, monetary policy in Islam, and Islamic financial institutions. The design stage is expected to answer the learning program designed to complete the analysis stage. The third stage is developing e-modules based on student needs. The fourth stage is implementing the developed product. And the fifth stage is evaluating whether the product is valid, practical, and has potential.

The development of contextual-based sharia economics e-modules for students of the UNIMED economics study program, based on the evaluation of the validators as follows:

1. The results of the feasibility carried out by material expert validation, namely "very valid" in this case can be seen based on 4 aspects of the category which include material clarity, material quality, presentation of material content, presentation of self-evaluation. The results of the assessment of the four aspects were declared "very valid" with an average percentage of 86.67%.
2. The results of the feasibility by the media expert validator are "very valid" which can basically be seen based on 6 aspects, namely aspects of media benefits, general appearance, media interactivity, media presentation, media design, media roles. Furthermore, it can be seen that the assessment of the six aspects is declared "very valid" with an average percentage of 81.67%.
3. The results of the validation of the design expert are declared "very valid". The assessment was carried out in terms of aspects of the feasibility of content, presentation, and graphics with the results of "very valid" amounting to 83.33%.
4. The results of the assessment by lecturers who support Islamic economics courses on contextual-based Islamic economics e-modules, namely "very good" amounted to 94.11%.

5. In addition, based on the results of the assessment, student trials were carried out through 3 processes, namely individual trials, small group trials, and field trials. The individual trial results obtained are "very good" which has a value of 92.78%. Meanwhile, it can be seen from the results of the small group trial that it has a "very good" value with a percentage of 91.67%. and for obtaining the results of field trials, namely "very good" the funds have a percentage rate of 91.11%.

Based on the conclusion of the study, it is explained that the e-module developed is "feasible" because we can know that the assessment from the expert team is categorized as "very valid". Meanwhile, the test results on students and lecturers were categorized as "very good". This is in line with research conducted by Rifki Risma, et al (2019: 201) the development of Sigil software e-module teaching materials that are developed and suitable for use can improve student learning outcomes with a percentage value of 92.85% in the very good category. According to Silvi Andryani (2020) where contextual-based modules are categorized as valid with the results of media expert validation, namely 75%, material experts 80%, practical criteria from educator response questionnaires 82%, student responses 88.88%. So, it is concluded that the developed e-module is categorized as feasible to use. Furthermore, based on the post-test results of students who became research samples on the concept of fiscal policy in Islam, Islamic monetary policy systems and Islamic financial institutions using contextual-based Islamic economic e-modules with the help of the sigil application. as for the post-test data on student learning outcomes as follows :

**Table 1.** Data table of student posttest score results

<b>Class</b>	<b>Average</b>	<b>Standard Deviation</b>	<b>Highest Score</b>	<b>Lowest Score</b>
Experiment Class (Ilmu Ekonomi B)	87,00	7,75	95	75
Control Class (Ilmu Ekonomi C)	73,14	6,77	85	60

Based on the learning outcomes of experimental and control class students, it can be seen that the average score of students after using the e-module has a difference in the value of learning outcomes where experimental class students are higher at 87.00, then the control class gets a score of 73.14.

Then based on the test of two average differences on the learning outcomes of the experimental class and the control class as follows :

**Table 2.** Tables experimental and control class t test results

		Levene's Test for Equality of Variances						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Learning Outcomes	Equal Variances assumed	1.997	.162	9.092	68	.000	13.857	1.524
	Equal Variances not assumed			9.092	66.288	.000	13.857	1.524

Based on the results of the independent sample T-Test above, a significance value of 0.000 <0.05 was obtained, then Ho was rejected and Ha, then the conclusion was that if there was a difference in the learning outcomes of the experimental class with Islamic economics e-module assisted by the sigil application and the control class without using e-module. -Islamic economics module with the help of the sigil application.

The difference in student learning outcomes can be concluded if the contextual-based Islamic economics e-module with the help of the sigil application is "effective" in Islamic economic learning to increase student output or learning outcomes which can be seen in terms of t-test where the significance value is 0.000 <0.005. Mujanip Alperi (2019:7) explains the role of effective digital sigil books to facilitate student learning in the millennial era where the learning system uses a lot of digital, in this case it can help students carry out learning more interestingly and motivate them to learn. independent both when there is a teacher and when there is no teacher. Dwi Rayana Siregar (in Novianti, 2016:4) explains that teaching materials play an important role in learning outcomes. According to Dwiyanti Wuri (2019: 87) it is known that the significance level of the t test is 0.000 < 0.05, in conclusion the effectiveness of using e-modules assisted by sigil applications on body care learning materials is 80.46% while the learning outcomes of group students without e-modules are 71 ,72%. So there is a significant difference in the experimental class and the control class.

## Conclusion

Based on the experts, where the material aspects of the contextual-based Islamic economics e-module are very valid with a percentage value of 86.7%. For e-module development media, it has a percentage value of 81.70%, which is very valid. Meanwhile, the learning design has a percentage of 81%, namely the very valid category. So it can be concluded that the contextual-based Islamic economics e-module is feasible to be used as teaching material.

Based on the results of the post-test experimental and control classes where the results of individual trials on 3 students had an average score of 92.78% categorized as very good. The results of the small group trial on 9 students had an average score of 91.67% categorized as very good. And the results of field trials on 35 students had an average score of 91.11% categorized



as very good. Furthermore, based on the results of the independent sample t-test analysis, it was found that sig.2-tailed  $\geq 0.05$  then  $H_0$  was rejected and  $H_a$  was accepted, so that there were differences in learning outcomes before and after being given treatment with contextual-based Islamic economics e-modules. Thus, this e-module is effective for learning, where the results of the effectiveness of the Islamic economics e-module on the average value of the experimental class students, which is 87.00%, then the control class gets a score of 73.14%.

## References

- [1] Abdul Majid. 2017. Authentic assessment of learning processes and outcomes. Bandung: PT. Rosdakarya Youth.
- [2] Al-Qur'anul Karim. Ministry of Religion of the Republic of Indonesia. 2010.
- [3] Andriani, S., Ramadhona, R., & Tambunan, L. R., (2020), Development of Sigil Software-Assisted Interactive E-Modules on Geometry Materials with Contextual Problems for Xi Vocational Class, *Student Online Journal*, 1(2), 692– 700.
- [4] Atep Sujana and Wahyu Sopandi. Innovative Learning Models Theory and Implementation. Depok : PT. RajaGrafindo Persada. 2020.
- [5] Cece Wijaya and A. Tabrani Rusyan. Teacher's Basic Ability in Teaching and Learning Process. Bandung: PT. Rosdakarya Youth. 2nd hit. 1992.
- [6] Ministry of National Education. E-Module Preparation Procedure. Jakarta: Ministry of National Education. 2017.
- [7] Ministry of National Education. Learning Techniques With Modules. Jakarta: Ministry of National Education. 2017.
- [8] Dimiyati and Mudjiono. Study and Learning. Jakarta: PT Rineke Cipta. 2006.
- FH, Y., Fatimah, S., & Barlian, I, (2021), Development of Interactive Digital Teaching Materials With Contextual Approaches in Microeconomic Theory Course, *PROFIT Journal of Economics and Economics Education Studies*, 8(1), 36– 46.
- [9] Fitri, A., Netriwati, N., and Andriani, S, (2021), Sigil Software as an E-Module Development for Mathematics Learning, *AlphaMath: Journal of Mathematics Education*, 7(1), 1–10.
- [10] Johnson E.B. 2002. Contextual Teaching & Learning. California: Corwin Press, Inc.
- [11] Mulyatiningsih, E. Applied Research Methods in Education. Yogyakarta: Alfabeta. 2011.
- [12] Nanik Rubiyanto. Holistic Learning Strategies in schools. Jakarta: Library Achievement. 2010.
- [13] Nurnasrina. Islamic Banking 1. Pekanbaru: Suska Perss. 2012.
- [14] Nurul Huda, et al. Islamic Macroeconomics Theoretical Approach. Jakarta: Kencana Prenada Media Group. 2009.
- [15] Priyanti, Endah T. 2014. Design of Indonesian Language Learning in the 2013 Curriculum. Jakarta: PT. Bumi Aksara.
- [16] Purwanto. Evaluation of Learning Outcomes. East Celaban: Student Library. 2016.
- [17] Resmawan, (2020), Development of Reasoning-Based Teaching Materials on Center Angle and Circumference of Circles, *Journal of Mathematics Education and Natural Education*, State University of Gorontalo, Vol.1, No.2.
- [18] Rifki Risma, et al, (2021), Development of Sigil Software E-Modules to Improve Student Learning Outcomes During the Covid-19 Pandemic, *Biodik: Scientific Journal of Biology Education*, Vol, 07, No. 4.

- [19] Sabrina Malika Hashim. The Importance of Sharia Economy in Indonesia. Retizzend Republika Blogger. 2012.
- [20] Sadirman. Teaching and Learning Interaction & Motivation. Jakarta: PT Raja Grafindo Persada. 2007.
- [21] Sigil.version 9.1.2
- [22] Sudjana, Nana. Assessment of Teaching and Learning Outcomes. Bandung: PT. Rosdakarya Youth. 2009.
- [23] Sugiyono. Quantitative, Qualitative, and R&D Research Methods. Bandung: Alfabeta. 2017.
- [24] Taufiq, (2017), Akbar Tanjung, Comparison of Contextual Approaches With Scientific Approaches to Learning Outcomes on Growth and Development Material for Class VIII Science at An-Nizam Private Junior High School Medan T.P. 2015/2016. Faculty of Mathematics and Natural Sciences, State University of Medan: Biology Education Study Program.
- [25] Trianto Ibn Badr Al-Tabany. Designing Innovative, Progressive, and Contextual Learning Models. Jakarta: Kencana. 2017.
- [26] Taniredja et al. Innovative and Effective Learning Models. Bandung: Alfabeta. 2017.
- [27] Veithzal Rivai & Andi Buchari. Islamic Economics. Jakarta: Earth Literacy. 2013.
- [28] Wahyudin Nur Nasution. Learning strategies. Medan: Perdana Publishing. 2017.
- [29] Wina Sanjaya. Educational Process Standard Oriented Learning Strategy. Jakarta: Kencana Prenada Media Group. 2006.
- [30] Winkel, W.S. Teaching Psychology. Jakarta : Gramedia. 2009.
- [31] Wulandari, S., Octaria, D., & Mulbasari, A. S, (2021), Development of E-Modules Assisted by Flip Pdf Builder Applications Based on Contextual Teaching and Learning, National Journal of Mathematics Education, 5(2), 389–402.
- [32] Zainuddin Ali. Sharia Economic Law. Jakarta: Sinar Graphic Offset. 2008.