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Student Response of The Integrated Biology E-Modul Imtaq Values on Vertebrate Material

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Abstract: This study aims to determine the student's response to the electronic module product of integrated vertebrate material imtaq values that have been developed. This research was a research and development (R&D) using a modified Analysis, Design, Development, Implementation and evaluation (ADDIE) model, but this research only reached the Development stage. Determination of student samplesby purposive sampling with a sample of 60 students from 3 schools. Student responses were obtained through limited trials at SMA Negeri 1 Tapung Hilir, MA Roudhotul Hidayah, and MA Al-Falah. Data was collected through observation, documentation, interviews, and student response questionnaires. The data is analyzed descriptively. The results showed that the developed e-module received a very good response from students with an average of 95.67%. Thus, the developed E-module can proceed to the stage of wide-scale trials.

Keywords **:** Student response, E-Module, Integration, IMTAQ values

INTRODUCTION

Science is growing from time to time. The development of this science supports the creation of new technologies that mark the progress of the times (Lestari, 2018). Thedevelopment of technology and information as well as human resources (HR) is a challenge for education providers in improving the quality of education. The development of information technology spurs a new way of life like that known as e- life, meaning that this life has been influenced by various needs electronically (Cholik, 2021). Therefore, teaching materials are needed that are by current technological developments

Those teaching materials are very unique and specific. Unique, meaning that the teaching material can only be used by a certain audience in a certain learning process. Specific means that the content of the teaching material is designed in such a way only to achieve certain goals of a certain audience (Nuryasana & Desiningrum, 2020). Similarly, Doni Sanjaya & Inawati (2019: 105) stated that teaching materials are one of the important learning tools to be provided in learning because teaching materials will make it easier for students and lecturers to carry out learning.

The competence to develop teaching materials should ideally have been mastered by teachers well, but in fact, there are still many teachers who have not mastered it, so in carrying out the learning process there are still many conventional. One of the teaching materials used is a module (Magdalena et al., 2020). This is in line with (Rukman & Samsudin, 2022) which states that the addition of modules, can helpteachers in delivering materials to students because teaching materials will have more specific materials, activities, and exercises to be carried out. Teaching materials will allow a teacher to determine for himself what approach will be used in perfecting the teaching equipment.

According to, (Larasati et al., 2020) Modules are a form of teaching material that can be used in the learning process. Modules can be interpreted as complete units consisting of a series of learning activities arranged to help students achieve a learning objective. Students can learn independently using modules without the help or presence of educators who are usually present in every lesson.

According to the Ataji et al., 2022, the selection of modules as teaching materials is developed and applied in biology learning because modules have adaptive, independent characteristics, based on self-instructions, and their user-friendly use instruction, which is an advantage of modules compared to other teaching materials. Therefore, researchers want to develop teaching materials, namely electronic modules. E-modules are deliberately designed as interactive teaching materials so that students can learn independently.

According to Widiana & Rosy, 2021 E-module is a form of independent learning medium arranged in digital form, where it aims as an effort to realize the learning competencies to be achieved, in addition to making students more interactive by using the application. The use of e-modules as learning resources is indeed very helpful in understanding the material. In addition to the language being easy to understand, the use of illustrations in modules can attract students' attention.

Based on observations and interviews conducted by researchers at SMA Negeri 1 Tapung Hilir, MA Roudhotul Hidayah Kota Bangun and MA Al-Falah, it is known that teachers have used e-modules in the learning process during learning during the Covid- 19 period. However, the e-modules used still belong to the education office or from the Ministry of Agriculture. In addition, there is no teaching material in the form of e- modules that support learning on Biology materials that are integrated with image values. The teaching materials used are only in the form of package books, LKS, and PPT.

In previous studies, there was no integrated biology e-module image value. Therefore, researchers want to develop an integrated biology e-module of imtaq value because it can increase faith and piety to Allah SWT. This is in line with (Vitrianingsih et al., 2021) which states that the use of Islamic integrated e-modules can increase students' confidence and devotion to God Almighty that all knowledge comes from the Qur'an.

Based on the background above, the formulation of the problem discussed in this study is how students respond to the integrated biology e-module of imtaq values in the developed vertebrate material. This study aims to determine students' responses to the integrated biology e-module imtaq value that has been developed.

METHODS

Research Design

This research method uses research and development (R&D) methods that refer to the ADDIE model (Analyze, Design, Development, Implementation, Evaluation). However, researchers limited this research to the Development stage because the development of this e-module will be tested in small groups. The research steps can be seen in Figure 1 below:

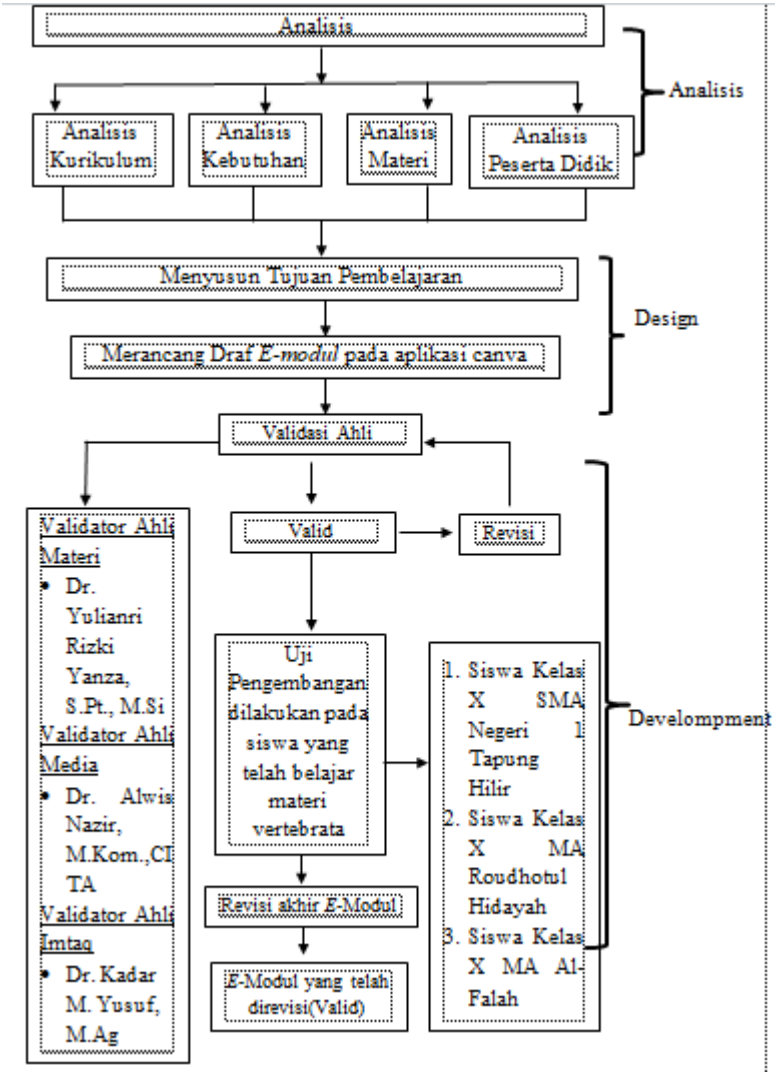


Figure 1. ADDIE research steps Sources: Modified (Robiah, 2022)

Population and Sample

In this study, the sampling procedure used purposive sampling. The population taken was 60 students of grade X of Tapung Hilir High School. The study sample was20 high school / MA students from each school.

Research Instruments

The data collection instrument used student response questionnaire sheets from 3 different schools, namely students of SMAN 1 Tapung Hilir, MA Roudhotul Hidayah, and MA Al-Falah. Then a limited trial was carried out on 20 grade X high school / MA students in each school, by providing a questionnaire of student

responses regarding the integrated biology e-module IMTAQ values.

The data were analyzed using descriptive analysis techniques. The descriptive analysis technique is a way that can be used in data processing carried out in the form of numbers. Using a formula to analyze the total score of the assessment in percentage form: P = f/n x 100%

P: Assessment score percentage
f: Score obtained
n: Maximum expected score

To see the interpretation criteria for student attractiveness in table 1

Table 1. Interpretation criteria of student attractiveness

Valuation	Interpretation Criteria
81%≤p≤100%	Very interesting
61%≤p≤ 80%	Pull
41%≤p≤ 60%	Less Attractive
21%≤p≤ 40%	Unattractive
0%≤p≤ 20%	Very unttractive

Sources: Muslihah dkk, 2018

RESULTS AND DISSCUSION

Results of Research Procedure

This research was conducted in three schools, namely SMAN 1 Tapung Hilir, MARoudhotul Hidayah, and MA Al-Falah. The results of the study of student responses obtained on average percentage can be seen in Table 2 below.

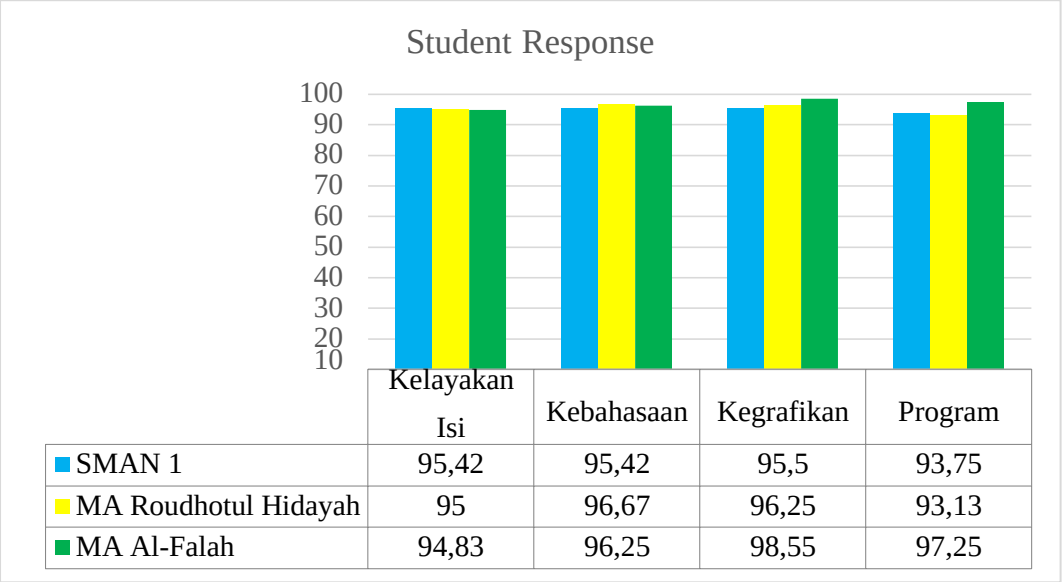
Table 2. Results of Student Response to E-module

No	Aspects	Average Student Response			Percentage (%)	Criteria
		I	II	III		
1.	Content	95,42	95,00	94,83	95,08	Very interesting
2.	Language	95,42	96,67	96,25	96,11	Very interesting
3.	Garafic	95,50	96,25	98,55	96,77	Very interesting
4.	Program	93,75	93,13	97,25	94,71	Very interesting
	Average	95,02	95,26	96,72	95,67	Very interesting
Average the pencertage			95,67%			

Note:
I : SMAN 1 Tapung Hilir
II : MA Roudhotul Hidayah
III : MA Al-Falah

Based on the results of limited trials obtained from student response questionnaires, it showed that in the aspect of content feasibility, a percentage of 95.08% was obtained on very interesting criteria. In the linguistic aspect, 96.11% with very interesting criteria, 96.77% graphic aspect with very interesting criteria and 94.71% program aspect with very interesting criteria. Overall, the average percentage ofstudents is 95.67% with very interesting criteria.

The following graph of limited trial results on high school / MA students from 3 schools can be seen in the following figure



	Kelayakan Isi	Kebahasaan	Kegrafikan	Program
SMAN 1	95,42	95,42	95,5	93,75
MA Roudhotul Hidayah	95	96,67	96,25	93,13
MA Al-Falah	94,83	96,25	98,55	97,25

Figure 2. Student Response

Disscusion

Based on the data obtained from the student response questionnaire, it can be seenthat students like the integrated biology e-module of imtaq values developed. Student response was lowest in SMAN 1 students with a percentage of 95.02%. While the highest student response on MA Al-Falah with a percentage of 95.67%. So, it can be concluded that the average percentage is 95.67% with a very interesting category.

Students provide comments and suggestions on the e-modules developed. The comments and suggestions of students can be seen in the table below.

Table 3. Student comments and suggestions regarding the biology e-module

Student	**Comments and Suggestions**		
	SMAN 1	MA Roudhotul Hidayah	MA Al-Falah
A	The material Presented is interesting	The title should not betoo bold	Very clear and easy tounderstand
B	Good cover and is quite	Interesting already good	The material is easy to understand
C	Can be accessed at any time because it is a file	-	-
D	The font for the e-module is clear	Reduce the file size again so that it does not take long when openingthe link	-
E	In this electronic module, the material component is not too heavy so it is easy to	Good Continue	-

	understand		
	The discussion in the e-module is not boring	It's better like this, so eager to learn	Good is related to science and the Qur'an
G	Attractive an daccessible electronic modules	-	Very interesting andeasy to understand
H	The module can be used anywhere, and based on the Qur'an we need to suggest: a larger font size It is	Good because thereare verses and hadiths	Easy to use
I	Good easy to understand	Can increase gratitude to God Almighty	Interesting teachin g materials
J	The picture is very clear	Good very attractive	The color is good so it doesn't make the eyes hurt
K	Cool can be used at school and at home	Interesting, the color is not boring	-
L	-	The e-module is interesting	There are Islamic treasures
M	-	Can know the evidenceof God's power	The link-openingprocess takes a little longer
N	-	The colors are nice and interesting to read	The e-module is nice and interesting
O	-	The video is interesting	The material is not boring
P	Unlike books, this is more interesting	-	The image resolution is good and clear
Q	-	-	Very interesting
R	Launching soon	-	-
S	Easy to use	-	-
T	Interesting to read	Teaching materials that have never been in school	-

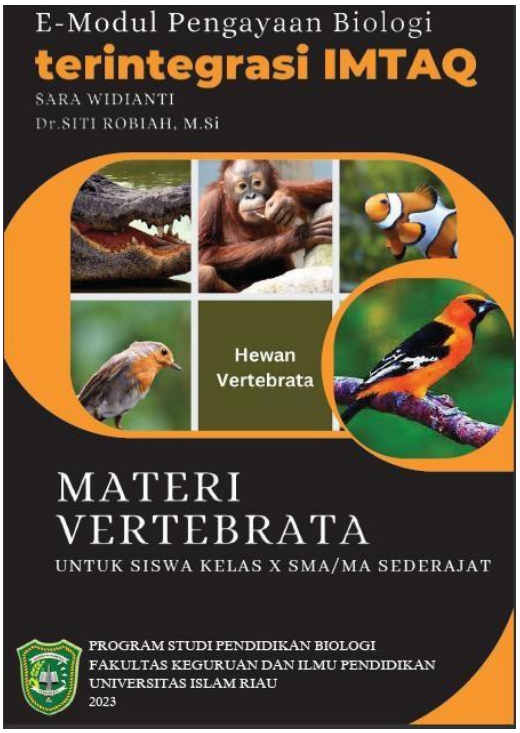


Figure 3. Front cover of e-module

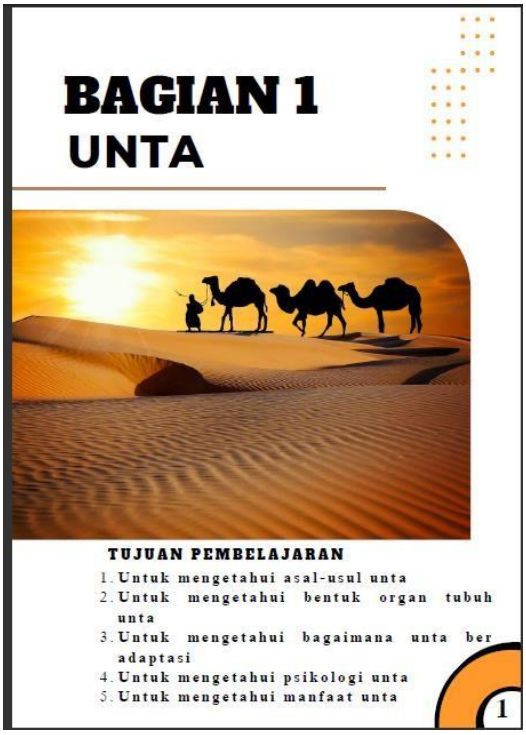


Figure 4. Cover part 1 e-module

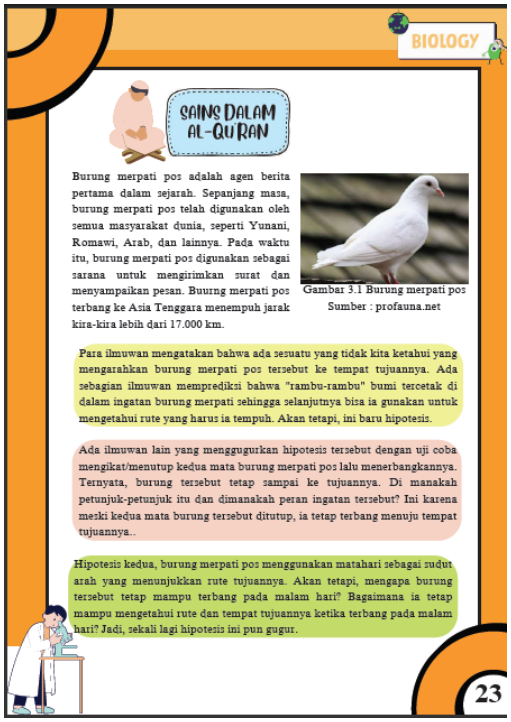


Figure 5. Presentation of material

Figure 6. E-module back cover

Based on the results of student responses to the e-modules developed, namely students from 3 schools, students of SMAN 1 Tapung Hilir, MA Roudhotul Hidayah, and MA Al-Falah, the average percentage was 95.67% (very interesting). This shows that student response to the Biology e-module is very interesting because the e-module product developed has met the content eligibility criteria, namely the suitability of the

material with learning objectives, the suitability of enrichment material with the level of development and benefits for students, and the material is easy to understand. In termsof presentation, the E-Modules are easy to use, accessible from anywhere, have instructions for use, assignments, exercises, evaluations, and assessments, and are written in simple language that students can understand.

According to, (Pardede et al., 2022) Electronic modules are a form of presenting independent learning materials that are systematically arranged into certain learning units, which are presented in electronic format, where each learning activity in it is connected with a link as a navigation that makes students more interactive with the program, equipped with the presentation of video tutorials, animations and audio to enrich the learning experience. In addition, the e-modules developed are also integrated with imtaq values so that students become more grateful to God Almighty and students can know the evidence of the power of God Almighty to their creatures. This is in line with (Robiah et al., 2022) who state that the purpose of Islamic education is inseparable from the purpose of human life in Islam, which is to create a person of God's servant who is always devoted to Him and has noble morals, rahmatan lil al-alamin and happy world and hereafter.

According to (Ulya et al., 2022) Science and religion are two things that are interconnected with each other. Science explains the scientific facts of what God has created, while religion explains the divine. Science and religion are inseparable, although they have different objects but science and religion are interconnected and complementary. This can be seen in the purpose of national education which not only aims to develop the ability and educate the nation, but also to shape students into humanbeings who believe and are devoted to Allah SWT.

According to (Mulya et al., 2023) The need for integration of IMTAQ values in learning is due to the lack of attention of educators/teachers in instilling the values of faith and piety (IMTAQ) to students through the subject matter delivered so that the balance of science and technology - IMTAQ has not been created. This is in line with (Ayu & Lepiyanto, 2019) which states that Islamic values can also be taught to students in learning activities, including biology learning. The Qur'an is a guide to life for humans, many verses of the Qur'an explain various events that occur on earth, explanations of the creation of Allah SWT both humans, plants and animals on earth.

In collecting student responses through limited trials of the developed E-Modules, researchers also provide suggestions and comments columns as reinforcement of responses obtained from limited trials. Suggestions and comments from students on the E-Modules developed include: the modules are good, interesting to read, easily accessible at any time, the material and language are easy to understand, and the colors and images are good so they are not easily damaged. However, when opening the e- module link requires a little longer process and the Qur'anic verse is enlarged again. Researchers take suggestions from students and then make improvements.

CONCLUSION

Based on the results of student responses, it can be concluded that the biology e-module developed is very interesting so that it can increase students' knowledge and increase faith and piety to God Almighty.

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