

# The Effectiveness of Digital Module as a Guide in the Al-Qur'an Study

Baeti Rohman\*, Desy Ayuningrum and Jarudin

**Abstract---** *The purpose of this research was to develop a digital module as a guide in the study of the Qur'an. This study uses a mixed-method with a quantitative approach. Using a questionnaire instrument with a Likers scale. The instrument validation was carried out by a team of experts namely material, design, and learning media experts who were competent in their respective fields. Feasibility test results are based on expert validation that an average value of 93% means that the resulting product is suitable for use, while the effectiveness test results are based on field test results with pre-test and post-test instruments the results have increased by 1.3 units meaning this product effective as a guide in studying the Qur'an. Based on the feasibility test and effectiveness test it can be concluded that the digital module was very effective as a guide in studying the Qur'an.*

**Keywords---** *Instructional Effectiveness, Develop Digital Module, Al-Qur'an Study.*

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## I. INTRODUCTION

The industrial revolution 4.0 has brought a series of changes in human life. At the same time, the presence of RI 4.0 has opened various opportunities for business people, governments, and individuals, but also brings challenges that will widen the gap between community groups.

Innovation skills can be cultivated through innovative learning processes - which are not always the same at all times, which not only seek the right answers (and only one), which not only memorize, but highly dynamic learning that is full of diversity, which uses diverse media creatively, which challenges students to produce a variety of alternative problem solving together, and that challenges students to be tough. Innovation skills that have been mastered by students will be useful skills for life.

The instructional process should be based on principles, centered on the trainees, developing the creativity of trainees, creating fun and challenging conditions, developing a variety of value-rated capabilities, providing a diverse learning experience, and learning through doing (Jarudin, Ibrahim, & Muslim, 2018). The Development of Digital Module Innovations can improve the dynamics of the learning process, foster innovation skills, and ultimately improve the quality of education in Indonesia. The purpose of this research was to develop a digital module as a guide in the study of the Qur'an.

## II. LITERATURE REVIEW

The Holy Qur'an is the word of Allah Subhanahu WaTa'ala (SWT) which contains moral messages aimed at human life throughout time and place. The messages were conveyed using Arabic cultural-geographical reasoning

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and tools in the form of Arabic (Quran 'Arabian). The fall of the choice of Arabic so that it can be understood (Shihab, 2008) by the community to whom the Qur'an is intended, namely the people of Mecca and Medina (Aminudin, 2005).

Al-Qur'an is linguistically rooted in the word qaraayaqrauranan which means reading or being read (Iryani, 2017). In general, the Qur'an is defined as the miracle of Allah's words revealed to the Prophet Muhammad Sallallahu Alaihi Wasallam (SAW) through the intermediary of Gabriel with the pronunciation and meaning of Allah SWT, reading it is worship; starting with surah al-Fatihah and ending with surah an-Nas. The Qur'an is also a way of life for humans in the world and the hereafter (Indonesian Ministry of Religion, 2017).

Technology makes a positive effect not only on social life but also on education. Since technology becomes increasingly prevalent within educational settings, there emerges an expectation for educators to utilize digital tools to support classroom teaching and learning (Akyuz & Yavuz, 2015). However, the rapidly changing technological innovations about education make it harder for the teachers (Kingsley, 2007). Technology changes of as that it is almost impossible to follow for the teachers. Nonetheless, although most teachers throughout the world still use chalk and blackboard, technological devices are used frequently in language teaching classrooms all over the world to provide supplementary practice in language courses (Akyuz & Yavuz, 2015).

Innovations in technologies for delivering digital instruction and developments in the pedagogy of hybrid and distance education. One consequence of digital instruction has been the generation of data that describe online learning. Library instruction is no exception, with many libraries using digital learning objects (DLOs) such as quizzes, tutorials, surveys, and forms to facilitate, quantify and verify students' learning (Sherriff, Benson, & Atwood, 2019).

Digitalization has been called out as the most promising enabler for increasing the overall performance of production systems in the last years (Dujin, Geissler, & Horstkötter, 2014; Stock & Seliger, 2016). However, digitalization must not serve its own ends. As a human-centered approach, it must serve to increase the effectiveness of operative management and the efficiency of manufacturing and supporting processes. In this paper, the authors raise the hypothesis that in the context of a more sustainable production digitalization has a positive effect on the operation of energy transparency tools (transparency referring to the visibility of energy demand (Posselt, 2015) and also the qualification and training of professionals on utilizing such tools to foster energy efficiency (Büth, Blume, Posselt, & Herrmann, 2018).

Learning factories as training environments have been applied for several years to impart knowledge and competences to both academia and industry. Traditionally, most learning factories concentrate on process-related learning, covering lean manufacturing, energy & resource efficiency or logistics (Abele, 2015; Böhner, Weeber, Kuebler, & Steinhilper, 2015; Rentzos, Doukas, Mavrikios, Mourtzis, D., & Chryssolouris, 2014). These characterizations may be expected to affect how we investigate students' digital literacy, whether and what we teach students about digital literacy, and what we expect of today's 21st-century learners (List, 2019).

Collaborative learning enables constant processes of feedback and updating and sets teacher and student communication on a closer, more flexible and more effective level. Although the process of creating a digital

portfolio may be considered the crucial point, the student's responsibility as to content and form is also at stake, since the public display of his/her work will inevitably expose him/her before a wide range of readers / consumers /users (Jans & Awouters, 2008). Nevertheless, the literature indicates that learning factories with a digitalization focus are mainly either pure research objects or show cases. Some of the key challenges of digitalization are how to determine appropriate fields for digitalization, and implement it to access all possible benefits, demonstrate new technologies and use information and communication technologies effectively (Hulla, Hammer, Karre, & Ramsauer, 2019).

### III. METHODOLOGY/MATERIALS

This research uses the research and development method with a quantitative descriptive approach. Involve 35 students divided into three groups: three students for one to one test, seven students for small group test, and 25 students for a field test. Each student is given a digital module to study as a study guide in studying the Qur'an, after studying it will be given a test to find out the learning outcomes that have been achieved. This research was conducted in the 9th grade Madrasah Tsanawiyah Bekasi.

### IV. RESULTS AND FINDINGS

#### 4.1. Results One to One Try-out Trial

One to one try-out trial was conducted between learning developers and three students individually. Selected students are ninth-grade students who have the medium ability, above medium and below medium. This trial aims to identify and reduce errors that are clearly contained in the digital module, besides this evaluation is intended to get responses from students about the content of the digital learning module, empirically. The developer gives each student a digital module along with a response sheet to provide information and responses freely about the digital module. Giving digital modules and response sheets carried out to each student separately to make responses following their individual opinions. In this One to One test concludes the results of the responses given to improve overall learning activities.

At the end of the one to one trial, a test will be given to be able to measure the level of understanding of the learning material that is seen and practiced, while the results of the trial data on three students are presented in Table 1.

Table 1: Result Evaluate One to One

No.	Respondent	Score	Alphabet
1.	Respondent 01	78,06	B
2.	Respondent 02	81,99	A
3.	Respondent 03	82,45	A
	Score Average	80,83	A

Individual test results illustrate an average value of 80.83 meaning that the quality of trials in this range is in a very effective category. Based on the average value it can be said that the digital modules developed can be used to achieve competency and understanding of student material.

#### 4.2 Results Small group try-out

Small group evaluation aims to obtain information that is used in perfecting the product in subsequent revisions. The testing phase was carried out for seven ninth-grade students. This small group is to represent the actual target population, and among them are not among students who have participated in one-to-one trials. Inputs are expected besides digital modules, as well as the learning process.

This stage begins by gathering students in a classroom and then being informed of the intent and purpose of conducting a small group trial. The information conveyed in the form of responses from students to the activities that take place includes an assessment of the quality of learning products both regarding the material and the learning process as well as tests that will be conducted at the end of this trial.

Distribution of digital learning modules and comments sheet to students is done after the purpose and purpose of the trial are informed. Then give students one week to study and digital modules and fill out the comment sheets that have been distributed.

From the results of small group evaluations, most students have no difficulty in understanding the material in the digital module. For the purpose of learning, students generally comment very clearly, because each moment has been equipped with narration.

The time given to study the material on the digital module is very sufficient so that students are very easy in answering all the questions raised in the response sheet. So the conclusion is that for the results of small group trials, there is not much change in digital modules, both in terms of material and learning. The results of tests conducted after the end of small group trials are as in table 2. below:

Table 2: The Result Evaluate Small Group

No.	Respondent	Score	Alphabet
1.	Respondent 01	77,02	B
2.	Respondent 02	79,03	B
3.	Respondent 04	82,12	A
4.	Respondent 04	79,30	B
5.	Respondent 05	81,05	A
6.	Respondent 06	80,20	A
7.	Respondetn 07	79,87	B
	Score Average	80,04	A

From the data from small group trial results with an average student score of 80.04 with good criteria, this digital module is very effective for conducting major trials or field trials. It's just as a constant consideration the developer coordinates with educators.

#### 4.3 Results Field Trial

From the input and suggestions from the previous trial, then the field trial is then carried out. Field trials aim to see the effectiveness of digital modules in achieving predetermined learning goals. Also, to obtain information about learning components, material components, and display components.

The trial was conducted with 25 students, adjusted for the number of students who entered the ninth grade in the

2018 school year. The main trial process was carried out like a small group trial but the population or number of students was greater than the small group trial.

Students are given a digital module, and the opportunity to learn this is done because it is to identify deficiencies or weaknesses in the digital module both material, instructional goals and learning outcomes. Following the main goal of developing digital modules to increase the knowledge of the Qur'an.

Also, the field trial criteria are conducting tests to see learning outcomes by conducting initial tests and final tests. Likewise with the response of students who learn to use digital modules to follow the learning of developers according to digital modules that have been done starting from the initial step.

The comparison of the results of the initial and final test results of this field trial can be seen in the following table 3.

Table 3: The Result Pre Test and Post Test Field Trial

No.	Respondent	Score Pretest	Alphabet	Score Posttes	Alphabet
1.	Respondent 01	80,12	A	91,30	A
2.	Respondent 02	75,20	B	82,30	A
3.	Respondent 04	60,45	C	78,20	B
4.	Respondent 04	60,46	C	75,12	B
5.	Respondent 05	66,73	C	79,20	B
6.	Respondent 06	63,65	C	76,68	B
7.	Respondent 07	72,78	C	80,15	A
8.	Respondent 08	78,30	B	85,67	A
9.	Respondent 09	68,40	C	77,35	B
10.	Respondent 10	67,40	C	77,50	B
11.	Respondent 11	69,23	C	79,99	B
12.	Respondent 12	78,54	B	81,25	A
13.	Respondent 13	77,67	B	80,97	A
14.	Respondent 14	70,35	C	79,99	B
15.	Respondent 15	73,78	C	81,13	A
16.	Respondent 16	67,50	C	78,99	B
17.	Respondent 17	68,78	C	79,80	B
18.	Respondent 18	80,12	A	91,30	A
19.	Respondent19	75,20	B	82,30	A
20.	Respondent20	60,45	C	78,20	B
21.	Respondent21	60,46	C	76,12	B
22.	Respondent22	66,73	C	79,20	B
23.	Respondent23	63,65	C	76,68	B
24.	Respondent24	72,78	C	80,15	A
25.	Respondent 25	67,00	C	85,12	A
	Score Average	67,02	C	80,59	A

Based on table 3 above, the presentation of the results of the field trial pre-test can be seen in Figure 1 below.

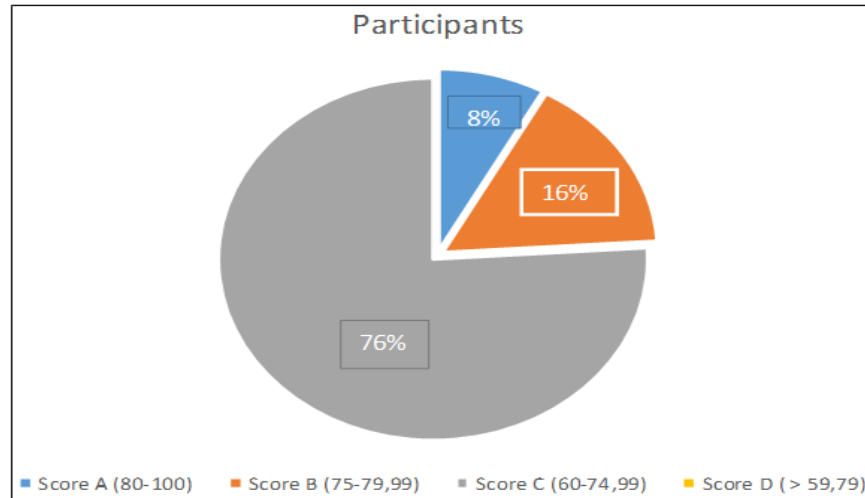


Figure 1: Results Pre-Test

Based on Figure 1 above, the results of the field trials of 25 students showed that students who scored 85-100 (A) by 8%, students who earned 75-79.99 (B) by 16%, students who get 60-74.99 (C) as much as 74%, and for students who score <59.99 (D) as much as 0%. It can be concluded that 74% of students get a value below the Minimum Mastery Critical Value (MMCV) which is 75, this shows an incomplete understanding of the material.

Based on table 3 above, the presentation of the results of the field trial post-test can be seen in Figure 2 below.

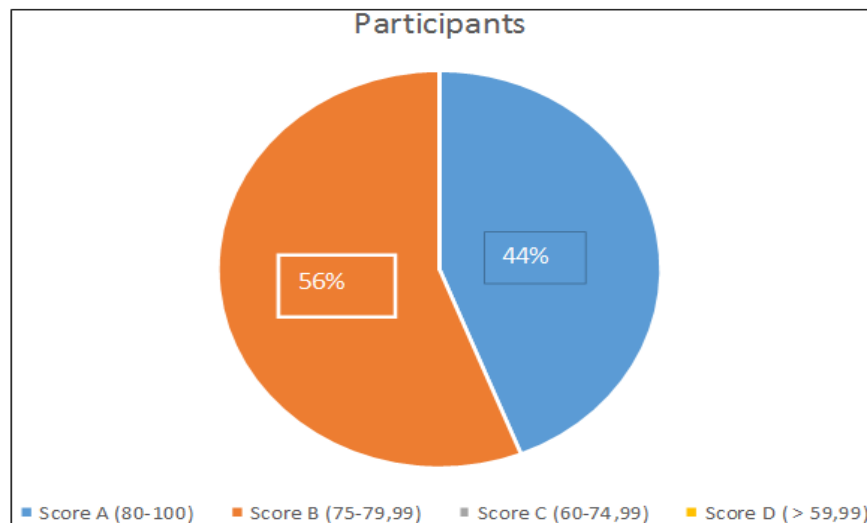


Figure 2: Results Post-test

Based on table 3 above, the results of field trials on 25 students show that students who score 85-100 (A) are 44%, and students who get 75-79.99 (B) are 56, it can be concluded that all students get 100% grades A, and B shows the completeness of understanding of the material.

Based on the results of the pre-test and post-test in field trials showed an increase in post-test results, so it can be concluded that learning with digital modules can increase learners' knowledge and the feasibility of digital learning modules to be used for ninth grade Tsanawiyah Madrasahs in improving Al-Qur'an studies 'an. Based on the results

of trials with potential users can be a lot of responses or comments as follows.

#### **4.4. Finding One to One**

At the end of this one to one trial, get input notes and responses from students that feel happy to have a practical study guide that can be used anytime and can help in independent learning. Digital learning modules can help independent learning in studying the Qur'an making it easier for students to increase understanding in studying the Qur'an. This opinion is supported by Bada's research (2015), that the use of instructional media in students can guide participants in independent learning (Yavner et al., 2015), and also supported by Modules can improve efficiency in the mechanism of practice (Ritou, Voarino, & Raccurt, 2018). Modules are very effective in improving skills (Amuguni, Bikaako, Naigaga, & Bazeyo, 2019).

#### **4.5 Finding Small Group**

Based on an average value of 80.04 it can be said that the digital learning module developed can be used as a digital module for understanding guidance in studying the Qur'an.

From the results of small group evaluations, most students have no difficulty in understanding the material available in the digital learning module. For the purpose of learning, students generally comment very clearly, are happy, motivated, easy, can help practice because it is easy to get learning resources as a guide in independent learning. In the opinion of Suwana and Lily (2017), digital media as a guide in improving students' skills (Suwana & Lily, 2017). Also supported by the opinion of Dalope and Woods (2018), digital media helps improve skills in students (Dalope & Woods, 2018). Also supported by the opinions of Iconaru and Ciucurel (2014), e-modules as tools in education (Iconaru & Ciucurel, 2014).

#### **4.6. Finding Field**

Based on the results of the pre-test and post-test in field trials showed an increase in post-test results, so it can be concluded that learning with digital modules can increase students' knowledge and the effectiveness of digital modules as a guide in studying the Qur'an.

This result is supported by the opinion of Sousa and Rocha (2019) stating that digital learning can be a driver for skills development (Sousa & Rocha, 2019). Also supported by researchers Hawlitschek and Joeckel (2017) that digital media can motivate students to improve skills (Hawlitschek & Joeckel, 2017), and participants increase their performance and satisfaction with performance in digital media (Raghavendra, Hutchinson, Grace, Wood, & Newman, 2018). Students increasingly need to learn content and perspectives that are not provided as part of the curriculum, students need to build additional forms of support for learning with digital media (Cress et al., 2018). Digital media learners who successfully handle disruption in the form of social-cognitive conflict resolution and productive friction are indispensable for the learning and construction of knowledge (Holtz, Kimmerle, & Cress, 2018). Modules can be a guide in making decisions (Dhaliwal, Simpson, & Kim-Sing, 2018). The module is very effective as an online study guide (Dhaliwal et al., 2018). Modules have the potential to improve students (Patelis, Matheiken, & Beard, 2015).

## V. CONCLUSION

Digital instructional can be a driver for developing the ability to study the Qur'an. In improving performance and satisfaction with digital media performance, communication tools can facilitate all these processes. The digital module is very effective as a guide in independent learning and collaboration. Digital modules help in studying the Qur'an effectively and efficiently.

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