

DIGITAL AI-QUR'AN LEARNING BOOK TO IMPROVE READING AND WRITING SKILLS AMONG NOVICE ARABIC LEARNERS

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Abstract

Purpose of the study: This research aims to develop a digital Al-Qur'an learning book to improve novice learners' Arabic reading and writing skills. It employs research and development methods and takes a procedural model, which is descriptive and has clear guidelines for developing the product.

Methodology: The steps include several procedures: planning, implementation, and evaluation. The data consist of preliminary study data and try-out data. The data analysis covers data presentation, reduction, verification, and concluding. On the other hand, the data in this research had been elaborated using the content analysis to find the appropriate substance of Al-Qur'an digital. The methodology in this research also used some modeling of new trends in human-computer interaction by Macías (2009). In this case, Macías developed interfaces to facilitate the main interaction modes. In this research interface of digital Qur'an, online and offline, tried to facilitate the novice learners' Arabic reading and writing process. The interface also related to the "word order" which had been used the model of Qur'anic words.

Main Findings: The final product from this research is a digital-based book for learning to read Al-Qur'an, which is equipped with reading and writing exercises and is suitable for students at the beginner-level. The strengths and limitations of the digital-based book are discussed.

Applications of this study: The result of this research can be used for Al-Qur'an educational institutions, both teachers and students.

Novelty/Originality of this study: The model development of the digital Al-Qur'an learning book is presented comprehensively and completely.

Keywords: *Al-Qur'an Learning Book, Digital, Reading Skills, Writing Skills, Novice Arabic Learners.*

INTRODUCTION

Learning to read and write Al-Qur'an in Indonesia has been conducted in various parts of the country, both in formal and informal institutions. This learning is inseparable from the fact that Indonesia is the country with the largest Muslim population in the world ([Hassan & Omar, 2017, p. 156](#)).

The ability of reading and writing the Arabic language had a near correlation with Al-Qur'an. There are many reasons why Arabic should be elaborated from the side of Al-Qur'an. Al-Qur'an had the special construction of Arabic structure, such as from the side of phonology, morphology, syntax, and semantics. The language of Al-Qur'an also had influenced the mind and soul of Muslims ([Admin of state of Maryland, n.d.](#)). Thus, Muslims need to learn about the Arabic language, especially related to the ability of reading and writing. Both of them can be gain from the best and correct method of teaching and learning Al-Qur'an ([Zailani, Zainal, Ghani, & Hashim, 2014, p. 5](#)).

In terms of learning to read and write Al-Qur'an, several books have been used as guides. The following are some examples.

- (a) *Iqra'*, written by As'ad Humam, Yogyakarta, Indonesia ([Bursan & Yunanda, 2015](#)).
- (b) *Tilawati*, written by Hasan Sadzili dan Ali Muaafa, Pesantren Virtual Nurul Falah, Surabaya, Indonesia ([FN & Ainurrohman, 2015, p. 72](#); [Istiqomah, 2019, p. 85](#)).
- (c) *Qira'ati*, written by Dahlan Salim Zarkasi, Semarang, Indonesia ([Rochanah, 2019, p. 105](#)).
- (d) *Ummi* written by Masruri dan Yusuf MS Surabaya, Indonesia ([Rifa'i, 2018](#)).
- (e) *Yanbu'a*, developed by M. Ulin Nuha Arwani, Ulil Albab Arwani and Manshur Maskan, Sya'roni Ahmadi, Amin Sholeh, Ma'mun Muzayyin, Sirojuddin, and Busyro, Kudus, Indonesia ([Mamlu'ah & Diantika, 2018, p. 113](#)).
- (f) *Al-Baghdadi*, the oldest method originating from Baghdad, which was known during the reign of the Bani Abassiyah, whose exact composition is unknown ([Nurhayati, 2019, p. 114](#)).

- (g) *An-Nahdhiyah*, which is a method of reading Al-Qur'an that was originated in the Tulungagung area, East Java, Indonesia ([Ma'mun, 2018, p. 58](#)).
- (h) *Al-Qalam*, which is an Al-Qur'an digital pen, a product of a technology company engaged in the field of propaganda ([Ramadhan, 2017](#)).
- (i) *Tartili*, developed by Samsul Arifin, Jember, East Java, Indonesia ([Arobi, 2019, p. 42](#)).
- (j) *Al-Barqiy*, written by Muhadjir Sulthon, former chairman of the Department of Arabic Literature at the Adab Faculty of IAIN Sunan Ampel Surabaya, Indonesia ([Huliyah, 2016, p. 27](#)).

These books have helped many students to be able to read and write Arabic, especially Al-Qur'an.

Previous studies have been conducted on Al-Qur'an teaching and learning, both on the textbooks and the learning method. [Amalia \(2015\)](#) investigated by Content Analysis the Reading Books of the Al-Qur'an "Iqra', Qira'ati and Ummi". The results suggest that the book has both strengths and weaknesses.

Another study by [Arfan \(2007\)](#) titled 'Practical Method of Learning to Read the Al-Qur'an in the Book of Qira'ati by Dahlan Salim Zarkasyi (Material Analysis)' revealed that this Qira'ati book is one of the textbooks for reading Al-Qur'an that is equipped with the knowledge of recitation and *Gharib*, which is used to help novice Al-Qur'an learners to overcome some learning problems. The implementation of the Qira'ati method in developing the learners' ability to read Al-Qur'an was found to be able to discipline the young learners of Al-Qur'an at the An-Nuriyah, Bulurejo Kindergarten, Purwoharjo District, Banyuwangi Regency, East Java, Indonesia. Findings also showed that the Qira'ati method implementation, if arranged very neatly and conceptually, could improve learners' skill in reading Al-Qur'an.

LITERATURE REVIEW

[Hamzah\(2017\)](#) examined the efforts of Al-Qur'an writing literacy teachers in improving the quality of Al-Qur'an reading and writing students at the Islamic Elementary School Plus Masyithoh, Kroya, Cilacap Regency, Western Java, Indonesia. The background problem of his research is that one aspect of Islamic religious education that needs to get more attention is learning to read and write Al-Qur'an properly and correctly. He argued that the quality of reading and writing of Al-Qur'an students needed to be improved. The study gave several suggestions to improve the quality of Al-Qur'an learning:

- (a) To allocate more time for Al-Qur'an learning (10 hours per week).
- (b) To create a good learning atmosphere and give motivation during learning.
- (c) To use the methods, appropriate to learners' age.
- (d) To implement various learning media.
- (e) To prepare and provide suitable materials.
- (f) To provide supplementary facilities.

[Srijatun \(2017\)](#) examined the Implementation of Al-Qur'an Reading and Writing with Iqra' Method in Early Childhood in RA Perwanida Slawi, Tegal Regency. This study aimed to determine how the application of Al-Qur'an reading and writing with Iqra' method is conducted in early childhood and the factors that support and hinder the process of learning to read Al-Qur'an. The research findings show that learning to read and write Al-Qur'an with Iqra' method was prepared in a planned and systematic manner, which were based on the RA curriculum. Iqra' method is suitable for young children because it teaches reading and writing Al-Qur'an by introducing the letters gradually and directly with the sound of reading from easy and simple material to a more perfect, systematic, active, communicative, varied material.

[Ansarimoghaddam \(2014\)](#) had been concluded that writing is an important language skill. This present research had been emphasized that "the instructors" can help their students to improve their writing skills, especially in novice learners. [Alzarieni \(2019\)](#) had been elaborated comprehensively about the rhetorical structure of the Arabic patent abstracts, the result of this study provides novice patent drafters in the Arabic language with the appropriate rhetorical move structure typically applied in drafting Arabic patent abstracts. The relation between Al-Qur'an and cognitive intelligence had been elaborated by [Slamet \(2019\)](#).

In this research, Slamet had been concluded that memorizing Quran in kindergarten might positively improve the children's cognitive intelligence. In our opinion, the process of memorizing should be completed by using digital Qur'an learning to make the result more effective. On the other hand, the competent of memorizing Al-Qur'an have to be conducted by the reading and writing skill of Arabic language based on the digital Al-Qur'an. [Ismail \(2019\)](#) also had been elaborated on the relation of al Quran and the competent of memorizing. The results of this study reveal that the level of understanding of Arabic grammar and morphology of the Qur'an amongst *tahfiz* students is high. This research had not elaborated on the Digital Al-Qur'an. The study by [Nurwanto \(2019\)](#) investigated whether Qur'an-related subjects taught in Muhammadiyah schools endorse peace. His study concluded that textbooks used in those subjects provide materials that encourage peace. His study, however, has some limitations such as the lack of clarity and some relevant

literature. The lack of clarity might be affected by the learning targets which are shaped by relatively low-order thinking skills. Amid the limitations, the textbooks are engaging as they contain materials about peace.

Other studies were those by [Nur Khasanah \(2012\)](#) and [Mifullah\(2016\)](#) who explored the relationship between Al-Qur'an reading ability and learners' achievement in the Al-Qur'an hadith subject among seventh-grade students in MTs Al-Ikhlâs Karang Anyar, East Java, Indonesia. Al-Qur'an also related to mental health. [Mahjoob \(2015\)](#) had been concluded that Al-Qur'an listening could be recommended by a psychologist for improving mental health and achieving greater calm.

Various studies have shown that learning to read and write Al-Qur'an has received large attention from researchers, considering the importance of the ability to read Al-Qur'an in Indonesian society which is predominantly Muslim. As mentioned earlier, despite the availability of various books focusing on learning Al-Qur'an, some areas still need improvement. Therefore, it is necessary to design and develop a book that can compensate for those weaknesses, while also paying attention to the theoretical aspects of language learning for beginners. Besides, the book developed must also be appropriate to the current context, namely the millennial era. The research team hence proposed the title: *Developing Digital Al-Qur'an Learning Book to Improve Arabic Reading and Writing Skills for Novice Learners*.

Teaching material is considered self-instructional if it can be used in various forms by the students individually and independently, at a flexible time ([Yunita & Hakim, 2014](#)). Having self-instructional teaching materials makes it easy for students to learn new material, or to have a review and strengthen previous lessons. According to Widodo in Lestari (2013), teaching materials must have five characteristics, namely self-instructional, self-contained, stand-alone, adaptive, and user-friendly ([Nugroho, 2015](#)).

To be self-instructional, teaching material should (a) have a clear purpose, (b) be packaged into small and specific units, (c) present examples and illustrations that help to understand, (d) present questions training or task, (e) present the materials in context, (f) use straightforward and communicative language, (g) present a summary of learning material, (h) provide a self-assessment grid and the level of student mastery of the material, (i) provide space feedback to measure the level of material mastery by students, (j) provide information about references or enrichment references related to the material ([Ambarwati, Arifin, & Sari, 2014](#)).

The ability to provide complete information related to various aspects of learning material makes a self-contained teaching material ([Rahmadhania, Panjaitan, & Wahyuni, 2017](#)). Besides, complete teaching materials also provide heuristic questions related to the material to facilitate understanding and good mastery by students. If the completeness of information about certain material has been provided in such a way as teaching material, then it can be considered to be able to stand alone ([Nisak, Saptasari, & Corebima, 2019](#)). With this teaching material, students do not need other teaching materials to understand a particular topic.

Teaching material is said to be adaptive if it, for example, can anticipate the development of science and technology, can be used in various places, or be used in a relatively long time ([Lusiana & Hartono, 2016](#)). Finally, teaching material can be called user-friendly if it is easy to use the following students' needs and wants. To be used friendly, teaching materials are usually required to provide instructions and information as clearly as possible ([Pinahayu, Auliya, & Adnyani, 2018](#)).

On that basis, the development of teaching materials should be oriented to student needs and abilities of students ([Sukmawati, 2015](#)). Materials should be presented gradually, which helps the process of understanding ([Akhyadi & Mulyono, 2018](#)). Repetition of material, in various ways and appropriately, needs to be done to ensure understanding in learning as a process. The teaching materials should establish certain indicators to measure the achievement of intermediate goals ([Indrawini, Amirudin, & Widiati, 2016](#)). Moreover, teachers have an important role in building and maintaining student motivation, providing the direction needed to help to learn success, and providing reinforcement throughout the learning process.

Education in this era is experiencing rapid development due to digital learning. By utilizing the development of information and communications technology, education can be inclusive, reaching all levels of society. The quality of learning can be improved by employing interesting, interactive, and creative systems ([Munir, 2017, pp. 12–13](#)). This can be realized through digital and blended learning. Within this framework, we attempt to develop a digital-based Al-Qur'an learning material to improve reading and writing skills. This digital learning is a system that can facilitate learners to learn more broadly, more widely, and in a variety of ways. Through the system, learners can learn anytime and anywhere without being restricted by distance, space, and time ([Poon, 2013, p. 273](#)).

METHODOLOGY

The present research uses a research and development design from Borg and [Gall \(2003\)](#) with a few modifications, by considering the appropriateness to the characteristics of this research. The final product of this research is a digital-based book that is indexed by ISBN. The digital-based book in this research had been constructed to gain a high impact on public learners, especially novice learners' Arabic reading and writing skills. By elaborating on the related digital-based book, it hasn't been found the comprehensive digital book in Indonesia related to Arabic reading and writing skills based

on Al-Qur'an learning and teaching. This prototype will become the first and pioneer of Arabic digital-based books, especially in developing and improving reading and writing skills.

The development model used is procedural ([Punaji Setyosari, 2016](#), p. 282), which is a descriptive research model that outlines the steps to produce products in the form of digital-based Al-Qur'an reading books. [Macias \(2009\)](#) also had been elaborated on the novelty of interface technology, such as Semantic Web Interface, Natural Language Processing, and Mobile interaction, as well as new methodological trends such as new methodological trends. This research also tried to combine some of the new methodological based on the Al-Qur'an digital to the competence of writing and reading of the Arabic language. The effort to find the novelty in methodology had a significant impact, especially in the development of digital al-Qur'an.

Research and development designs were conducted in a procedural step. The first step is planning, which consists of a preliminary study, questionnaire analysis, and interview. The second step is implementation. This is followed by an evaluation, which comprises the try-out of the prototype, expert validation, and revision. The data in this research consisted of preliminary study data and trial data. The preliminary study includes material descriptions, developed competencies, topics appropriate to learners' needs and characteristics, and material organizations in the book. This information is collected by a questionnaire given to the target users of the book.

The main instruments in this research development are the researchers themselves (human instruments). The researcher collected data, presented data, reduced data, organized data, interpreted data, and concluded based on the data ([Bogdan & Sari, 1998](#)). The supporting instruments utilized in this study are the instrument development rating and the preliminary study analysis guide.

The technique used in collecting research data is the documentation ([Punaji Setyosari, 2016, p. 64](#)). The working procedure includes (a) conducting a preliminary study, (b) carrying out planning, (c) developing an initial product, i.e. designing the material and its exercises, and describing the material in chapters and sub-chapters, (d) expert testing. Models must be tested to meet theoretical and scientific standards. If possible, each of these models needs to be discussed. A model is said to be valid if the results of the model can be accepted by users and can explain the actuality of implementation. The validation stage is the final stage of the model preparation; before the validation stage, the model needs to be verified. Model verification is a process of proving that what is believed to be true ([Haryati, 2012, p. 22](#)); according to [Law & Kelton \(1991\)](#) (e) Revision I, (f) Initial trials. (g) Revision 2, (h) Final digitalization, and (i) Book publishing and distribution.

This study uses a qualitative descriptive analysis as stated by [Miles and Huberman\(1992\)](#) which includes four stages, namely (a) data presentation, (b) data reduction, (c) data verification, and (d) concluding. The validity of the findings was verified by the triangulation method; triangulation was done based on the viewpoint of researchers and peers, book users, and experts who observed the research products ([Zamili, 2015](#)).

The validity of the findings also had been verified by *Qur'anic Arabic Corpus*. Qur'anic Arabic Corpus can annotate the information structure of the clause. It is very important to find the information construction in the Qur'anic verse to gain the information about the given and the new information in Arabic language, related to this case, new and given information in the Arabic language had been elaborated comprehensively by [Anis \(2018\)](#). It can be assumed that the lack of annotation can be supplied by investigating the linguistics analysis in Qur'anic Arabic Corpus. Corpus in the Arabic language can be defined as *mudawwanah* (مدونة) or *majmū'un-nushūsh* (مجموع النصوص). Corpus also can be defined as "textbooks" which are being analyzed and compared or a sample of sentences or utterances which are being analyzed for their linguistic features. On the other hand, the corpus also can be defined as a collection of materials that have been made for a particular purpose. To make a fully benefit corpus, it needs to annotate([Meyer, 2004, p. 81](#)). There are three types of annotation in the corpus, they are (1) structural markup, (2) part of speech mark up, and (3) grammatical markup.

The evaluation was based on the established guidelines. On the other hand, according to BPS (Badan Pusat Statistik) Indonesia, there were 54 % illiterate Muslims in Indonesia, especially illiterate in Al-Qur'an. PTIQ (Perguruan Tinggi Ilmu Al-Qur'an) Jakarta also had been released the research that 60 – 70 % of Muslims in Indonesia cannot read the Al-Qur'an. This condition needs the best method and solution on how to reduce the illiterate Muslim in Indonesia, especially in illiterate Al-Qur'an. This article tried to feel the gaps in developing a digital Al-Qur'an learning book to improve novice learners' Arabic reading and writing skills.

RESULTS/FINDINGS

A preliminary study was carried out by analyzing various books that have been used to learn reading and writing Al-Qur'an. The books analyzed were *Iqra'*, *Qira'ati*, *An-Nahdiyyah*, *Yanbu'a*, and *Ummi*, each consisting of 6 volumes, *Adz-Dhikr* consisting of 5 volumes, 4 volumes of *Tartil*, *Al-Barqiy* and *Al-Baghdadi* 1 volume each. These books have their strengths and weaknesses.

Based on the results of questionnaires and interviews with 31 respondents who had studied various books mentioned, the following results were obtained. First, as many as 65% of respondents stated that the material in the books was presented in order and systematically. The level of material difficulty ranged from easy to more difficult (52%). In the currently

existing books, there are very few writing exercises. Only 26% of respondents stated that there were reading and writing material in these books. Some 16% of respondents stated that these books included writing exercises. Exercises were also considered lacking (19%). Around 19% of respondents stated that if any exercise was given it was related to the material being studied. The language used in the books, according to 16% of respondents, was easy to understand. The rest said it was not so easy and difficult to understand.

Based on the results of expert tests, the development of this book has the following characteristics which are (a) preface which contains book information and thanks and (b) material which is consists of 10 reading material and 10 writing material

Table 1: Draft Reading and Writing Books for Beginners

Material	Material description
Reading 1	Letter recognition أ - ب - ت - ث - ج - ح - خ
Writing 1	Practice making straight lines, curved, upright, oblique and writing letters
Reading 2	Letter recognition د - ذ - ر - ز - س - ش - ص - ض
Writing 2	Writing exercises by thickening and writing letters د - ذ - ر - ز - س - ش - ص - ض
Reading 3	Letter recognition ط - ظ - ع - غ - ف - ق
Writing 3	Writing exercises by bolding letters ط ظ ع غ ف ق
Reading 4	Letter recognition ك ل م ن و ه ي
Writing 4	Writing exercises by bolding letters ك ل م ن و ه ي
Reading 5	Introduction of <i>fathah, kasrah, dhammah</i>
Writing 5	Writing exercises by way of thickening words that are written in public treasures
Reading 6	Letter recognition <i>qalqalah, al syamsiyah, and al qamariyah</i>
Writing 6	Writing exercises by thickening words containing the letters <i>qalqalah, al syamsiyah, and al qamariyah</i>
Reading 7	Introduction of <i>tanwin (fathatain, kasrotain, and dhammatain)</i>
Writing 7	Writing practice by thickening the words containing <i>tanwin (fathatain, kasrotain, and dhammatain)</i> .
Reading 8	Practice reading words and phrases that have the same final sound or <i>wazan</i> so that it sounds beautiful and touches the taste
Writing 8	Writing exercises by thickening and rewriting verses contained in a short letter
Reading 9	An introduction to the reading of three words taken from the verses of Al- Qur'an
Writing 9	Writing exercises by way of thickening and rewriting verses taken from Al-Qur'an
Reading 10	The introduction of 4-5 words is taken from the prayers in Al-Qur'an
Writing 10	Practice writing prayers in Al-Qur'an

Generally, the majority of respondents stated that writing has been clear to read and easy for learning. Based on these various opinions, the respondents concluded that they strongly agreed that the digital-based Al-Qur'an reading book is developed for novice learners. The respondents also suggest that the material should be arranged more easily, should include more exercises, which are made easier to understand and more concise. Based on the preliminary study, the scope, objectives, and competencies to develop the digital-based Al-Qur'an reading book are determined. The scope of this book is limited to the introduction of reading and writing *hijaiyah* letters and the introduction of vocabulary, phrases, and texts of short verses and short prayers in Al-Qur'an. The purpose of the digital-based Al-Qur'an reading book is to improve Arabic literacy skills for novice Al-Qur'an learners.

After a revision of expert and peer team input, the book was field-tested on 34 respondents consisting of 25 children from TPQ Mar'atussholihah Batu, East Java, Indonesia, and 9 mothers from Kursus Baca Al-Qur'an UMMI Umatan Batu, East Java, Indonesia. The field trial results are given in Table 2.

Table 2: Readability Test Results of books

No	Component	Sufficient	Average	Insufficient
1.	The difficulty level is appropriate	33 (97%)	1	0
2.	The number of exercises is sufficient	10	19 (55%)	5
3.	The appropriateness of the practice questions in this book with the material being taught	17 (50%)	16	1
4.	The exercises presented in each chapter in this book have enabled students to read and write Arabic letters	23 (68%)	2	3
5.	Variation of exercises in this book	19 (55%)	13	2
6.	The appeal of this book if it is published and used for beginners	18 (53%)	16	0
7.	The number of materials that need to be added in a chapter	8	13 (38%)	12
8.	Accuracy in using phrases, vocabulary and sentences	20 (59%)	14	0
9.	The language used is easy to understand and according to	25 (73.5%)	9	0

No	Component	Sufficient	Average	Insufficient
	Indonesian language rules			

Based on these data it is known that this development book is suitable for beginners to use. However, respondents gave suggestions and input for improvement:

- (a) Respondents stated that this book was very good and quite clear.
- (b) The example module is not too complicated for beginners.
- (c) Some respondents suggested more verses in the exercise.
- (d) There should be more reading materials, but some say the book is too thick.
- (e) Longer verses should be added.
- (f) More variations should be added.
- (g) There should be more materials added to the writing exercise.

Revision 2 was done by adding some materials as suggested by the target users, namely the addition of exercises in chapters 5, 6, and 7. The materials were then digitalized. The material deemed appropriate was then uploaded in Scribd as a form of digitalization that is easily disseminated, shared, and obtained by people in need, with the link ([Hasan, 2016](#)):



Figure 1: Illustration Cover of The Book

Source: <https://www.scribd.com/document/426278503/Buku-Pebelajar-Al-Qur-an-Aku-Bisa-Baca-Tulis-Al-Qur-an>

After the revision, the book was published and distributed to several institutions that teach Al-Qur'an at the beginner level, so hopefully, this book will bring more benefits to novice learners of Al-Qur'an reading and writing.

DISCUSSION / ANALYSIS

The previous research [Macías \(2009\)](#) had been elaborated on "Semantic Web Interface for Newspaper Multimedia Content Management". The main notion in this research had been concluded that the interfaces have been developed whose goal is to facilitate the main interaction modes. In the present research, the interface will be focused on some units of novelty, such as: (1) how to learn Al-Qur'an using the digital version based on the word order in Qur'anic words. (2) there are some accommodations for a novice learner to practice reading and writing Arabic based on Qur'anic digital method, the adjustment focusing on the "syllable" between Arabic and Melayu language. The fragmentation of syllables made the novice learner easier to practice the Arabic language.

The adjustment of syllable also conducted by the pattern (wazan) in the Arabic language. This model of fragmentation of syllables has not been elaborated by the previous researches, especially related to Qur'anic digital. On the other hand, the fragmentation of syllable (separate syllable) has been elaborated by Cooper (2010). [Ryding \(2014\)](#) had been concluded that Syllable structure constitutes the component of phonological word division focused on pronounceable segments of words and how they are composed, divided, and distributed. Syllable structure is also a subdivision of the study of phonotactics, or the rules of sound distribution, the specific sequences of sound that occur in a language. Ryding also had been emphasized that the syllables in Arabic involve the analysis of lexical stress. The analysis of lexical stress will be elaborated comprehensively in the present research as the basic foundation to learn the Arabic language based on the digital Qur'an.

CONCLUSION

Numerous Al-Qur'an reading and writing books exist with various contents, each with their strengths and weaknesses. However, efforts to make Al-Qur'an as an Arabic book that is easy to learn and understand are consistently done to help novice learners to read and write Arabic. Based on the results of preliminary studies, Al-Qur'an reading books available so far have their weaknesses and advantages. The weakness is mainly in the lack of writing exercises, as the focus of learning is still directed at reading skills.

The strengths of the book designed in this study include (a) digitalized and indexed, (b) sufficient reading material and at the same time writing exercises, (c) *Hijaiyah* letters are grouped in 4 large groups based on writing similarity and sequence letters, (d) sound recognition is adjusted to the Indonesian context, i.e. it starts with 2 syllables, then is gradually introduced to 3 sounds as in Arabic, (e) the sound introduced first is the sound attached to *hijaiyah* letters in sequence, then after that, the sounds *i* and *u* together, (f) the introduction of the material *qalqalah*, *al qamariyah*, and *al syamsiyah* is given after the student has reached the middle of the material, (g) the introduction of *tanwin* with the Qur'anic vocabulary which has the final sound the same or the same *wazan*, (h) the introduction of phrases, similar sentences and short verses in juz (i) reading and writing books as a result of this research concludes with an introduction to reading prayers in Al-Qur'an and writing exercises. Based on the results of field trials, this book is suitable for beginner level learners.

LIMITATION AND STUDY FORWARD

Based on the results of this study, it is recommended that future researchers make use of this book. We also suggest that beginner learners or Al-Qur'an educational institutions use this book, both as a main book for learning to read and write Al-Qur'an and as a supplementary book.

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AUTHORS CONTRIBUTION

Nuruiddin and Muhammad Yunus Anis designed the model and the computational framework and analyzed the data. Nur Anisah Ridwan and Muhammad Yunus Anis carried out the implementation and performed the calculations. Hanik Mahliatussikah and Zawawi Ismail wrote the manuscript with input from all authors, conceived the study, and were in charge of overall direction and planning. Hanik Mahliatussikah and Nur Anisah Ridwan derived the models and analyzed the data. Zawawi Ismail wrote the manuscript in consultation with Nuruddin, Nur Anisah Ridwan and Muhammad Yunus Anis. All authors provided critical feedback and helped shape the research, analysis, and manuscript.

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