Research and Development in Education (RaDEn)

UMM

Research Article

Development of Arabic language teaching materials based on information technology for elementary schools

Kurniawan Djody[a,1], S. Suharsiwi[a,2,*], Muhyiddin Tohir Tamimi[b,3], B. Busahdiar[a,4], Fauzi Al-Mubarok[b,5]

[a] Department of Islamic Studies, Faculty of Islamic Studies, Universitas Muhammadiyah Jakarta, Jl. KH. Ahmad Dahlan, Cirendeu, Ciputat, Tangerang Selatan 15419, Indonesia
[b] Department of Islamic Studies, Universitas Cendekia Abditama, Jln. Islamic Raya, Kelapa Dua, Kota Tangerang, Banten, 15811, Indonesia
[1] humaidy.abdulkarim@gmail.com; [2] suharsiwi@umj.ac.id*, [3] muhyiddin_tohir_tamimi@uca.ac.id, [4] busahdiar@umj.ac.id, [5] fauzialmubarok@uca.ac.id,
*Corresponding author

Citation: Djody, K., Suharsiwi, S., Tamimi, M.T., Busahdiar, B., & Al-Mubarok, F. (2024). Development of arabic language teaching materials based on information technology for elementary schools. *Research and Development in Education (RaDEn), 4*(2), 1397-1407. https://doi.org/10.22219/raden.v4i2.36100

Received: 31 August 2024
Revised: 7 December 2024
Accepted: 8 December 2024
Published: 26 December 2024

Abstract: Arabic, as one of the most widely spoken languages globally, holds substantial cultural and economic importance, particularly in the context of Islamic studies and international relations. However, teaching Arabic in elementary schools often faces challenges, including a lack of engaging and effective teaching materials that cater to the diverse needs of young learners. The purpose of this research is to create a design for developing Arabic language teaching materials for elementary schools subject research SDIP Darum Musthofa. This type of research is research and development or what is usually called Research and Development (R&D) using the Borg and Gall development design model. This research produced a product in the form of draft Arabic language teaching materials for third-grade elementary schools. The design of this teaching material shows that the information technology-based Arabic language teaching material developed has a high level of feasibility. This is proven by the results of the design expert validity test showing a percentage of 96% with a very decent predicate, the content/material validity test reached 90% with a very good predicate and also the linguist validity test reached 89% with a very good predicate. The results of the field test on students were 32.7% who said they were very good and 65.5% who said they were good. Based on the test results. The supporting factors for this development are supporting technology, and students who are capable of technology, while the inhibiting factors are the limited media provided at school.

Keywords: Arabic language; information technology; teaching materials

1. Introduction

The most important and inherent communication tool for humans is language. Without language, it will be difficult for someone to understand each other, learning a language is a series of complex and comprehensive activities and is carried out over a very long period of time (Naveed et al., 2024). Based on Mujib (2011) the field of linguistics from the beginning until now certainly still needs to be developed further to be more complex, this is a warning for all groups, especially experts in the field of linguistics to continue to innovate so that this discipline is not abandoned by its enthusiasts. Arabic is a science that must be studied, especially for Muslims to understand the contents of the Koran because the Koran actually uses Arabic which is still very pure (Sa'dudin et al., 2022). Learning Arabic and understanding the Koran are like coins whose sides cannot be separated, which means learning to study the contents of the Koran is the same as studying pure Arabic (Hosen, 2019). This is proven by the words of one of the famous companions of the prophet, namely Umar bin Khathab, he said:

عَلِّمُوْا العَرَبِيَّةَ فَإِنَّهَا جُزْءٌ مِنْ دِيْنِكُمْ

Meaning: learn Arabic because it is part of your religion

Yusuf (2015) said that if the Quran is interpreted as the word of God to his creatures, then it can be said that in addition to being a means of communication between fellow human beings, Arabic can also be said to be a medium of communication between humans and their creator. Seeing the importance of learning Arabic, not all educational institutions in Indonesia have made Arabic one of the compulsory subjects, especially in State Elementary Schools (Letmiros, 2019). The curriculum structure stated in the Minister of Education and Culture Regulation No. 12 of 2024 only lists Islamic Religious Education (PAI) as the main subject without an Arabic subject, Arabic has only been made a subject in Islamic schools, both Islamic elementary schools and Madrasah Ibtidaiyyah as stated in KMA No. 184 of 2019 concerning the implementation of the madrasah curriculum (Febriani & Bedra, 2022). In the implementation of Arabic language learning, we are often faced with complex problems that should be the concern of various parties, not just Arabic teachers (Wardana et al., 2021). One of the problems that will be raised in this study is teaching materials. According to Prastowo (2014), Teaching materials or teaching materials are any materials or materials collected from various information in the form of texts, or tools that are arranged in a systematic structured manner to build an ability that will be given to students in a teaching and learning process. Arabic language teaching materials currently still need development because the teaching materials used are limited to textbooks and also pay less attention to the characteristics of students (Rosyad et al., 2023), and even though there are textbooks that are integrated with technology (Haniah et al., 2023), there are still many obstacles in their use so that it will also be a problem in itself in the future (Samad & Arifin, 2024).

The use of technology is expected to motivate students more so that the material is understood more quickly and it is easy to memorize the vocabulary that is available in the teaching materials (Puspitarini & Hanif, 2019; Prayudi et al., 2021). Meanwhile, the purpose of using technology in the Arabic language teaching and learning process is to (1) create and grow children's sensitivity to technology that technology was created to make things easier for humans; (2) grow students' interest in learning because the use of technology makes learning more varied, (3) getting used to using Arabic vocabulary available in the teaching materials.

2. Materials and Methods

The method used in this study is the Research and Development method. This type of research method will allow to create or produce a product that is to be created. According to Sugiyono (2015) The use of the research and development method often known as the R&D method is expected to produce a certain product that aims to have benefits or be useful in the future, especially in this study in the field of education. The use of the Research and Development method that researchers do is expected to create teaching materials in the form of electronic textbooks or e-books that can be used for the world of education, both for teachers and for students (Sholihah et al., 2022; Ilham et al., 2023). The steps developed by Borg and Gall are shown in the Figure 1.

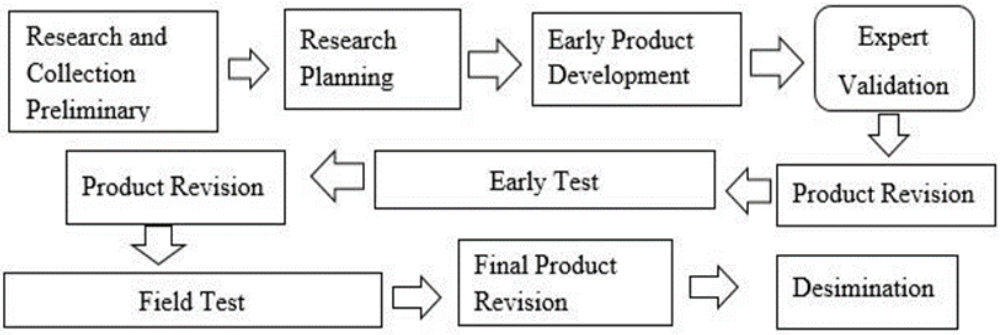

Figure 1. Research Step (Supriyono, 2022)

The research and development of IT-based Arabic Language Teaching Materials is divided into three parts, namely the first initial research includes analysis of the needs of students and educators at school, literature studies by reviewing several elementary school Arabic language books including analysis of core competencies, basic competencies, and learning outcomes. In the second part, this research process consists of four steps, namely; (1) conducting expert tests or expert judgments including design, media, materials, and language (2) conducting limited trials of teaching materials to SDIP Darul Musthofa students as research subjects; (3) Model revision, (4) field tests to test readability by teachers and students. The third step is data analysis in the research and development of teaching materials in the form of FGD based on the prepared instrument. The results of the validation carried out by expert judgment consisting of design and learning media experts, learning material experts, and Arabic language experts will be the basis for concluding that the teaching materials meet the eligibility standards for use.

The research instruments used consisted of documentation studies, interview guidelines, expert judgment questionnaires and students about the Arabic language textbooks used (Nasution et al., 2024). Data collection techniques include (a) Documentation studies related to the implementation of Arabic language learning. (b) Interviews are used to interview teachers, curriculum vice principals, and expert judgment. The interview technique used in this study was an unstructured interview. So the interview was conducted according to the needs of the study. (c) questionnaires used to measure product effectiveness. The questionnaire instrument was prepared with the aim of evaluating the quality of teaching materials so that the product is suitable for use (Chaves et al., 2023). The data is used to revise the product to be developed. The teaching material assessment questionnaire for experts consists of several components, namely the feasibility of the content of the material, the feasibility of the language, and the feasibility of the design/media (Syamriani et al., 2023). The respondent assessment questionnaire was prepared using Likert scale assessment criteria. On a Likert scale, the highest score for each item is 5, and the lowest is 1 (Joshi et al., 2015). The data analysis technique in this study used descriptive percentage analysis through data presentation or data conclusions processed using a percentage technique which was divided into five categories (Nasir & Sukmawati, 2023) with the Formula 1. M = percentage of attractiveness, ∑x = Total number of student answers, ∑xm = Total number of ideal scores in one item, and 100% = constant.

$$M = \frac{\sum x}{\sum xm} \times 100\ \% \quad (1)$$

The product is declared good, feasible, and interesting if the observation results are at least good qualifications (Richard P. Bagozzi, 2017). So that the product or teaching material for Arabic language subjects based on technology does not need to be revised again (Table 1).

Table 1. Criteria for the level of suitability of Arabic language teaching materials

Criteria (%)	Qualification	Validity Level
81%-100%	Very good	fit for use
61%-80%	Good	Fit with revision
51%-60%	Not good	Cannot be used
≤ 50%	Bad	Forbidden to use

In the early stages of this Arabic language teaching material development research, an analysis of the need for technology-based teaching materials was conducted, both in terms of the availability of Arabic language teaching materials, the need for the development of teaching materials, and the current conditions of Arabic language learning. The teaching materials currently used are still limited to textbooks and have not been integrated with technology such as the inclusion of barcodes that students can scan on their respective devices, so that when students experience difficulties, they cannot utilize the teaching materials optimally. Based on these findings, information technology-based Arabic language learning facilities are considered necessary and important to overcome obstacles in the learning process in the classroom, at least for schools that have not used media in learning.

Product Description

A product for developing Arabic language teaching materials based on information technology in the form of an electronic book or e-book with the title Arabic language book for grade 3 of elementary school developed in 2024. The learning objectives formulated in this e-book are adjusted to the KI and KD that have been determined by the government in accordance with KMA No. 183 of 2019. The formulation of material in Arabic language teaching materials has the addition of CHAPTERS in grade 1 and 2 materials or is formulated Table 2.

Table 2. Development of teaching materials

Old teaching materials	Developed teaching materials
CHAP 1: Names of lessons	CHAP 1: Names of lessons
CHAP 2: Names of animals	CHAP 2: Names of Animals
CHAP 3: Names of disease	CHAP 3: Names of Disease
CHAP 4: Names of sport	CHAP 4: Names of my Family
CHAP 5: My friends	CHAP 5: My Home
CHAP 6: in the Garden	CHAP 6: Names of Disease
	CHAP 7: Names of Sport
	CHAP 8: in the Garden

3. Results

After conducting the needs analysis, the next step is to conduct expert judgment testing. This expert judgment includes design experts to assess the design of the development of teaching materials as well as the media used, the assessment uses instruments used by Walker and Hess including accuracy, completeness, interest/attention, and usefulness (Rohmadheny & Laila, 2020). Language and material experts assess the content of the material in the teaching materials being developed, suitability with basic competencies, suitability with student characteristics, and the use of language that is in accordance with student characteristics (Rohimajaya et al., 2021). The assessments of all experts are recorded in Tables 3, 4, and 5.

The observations of student activities in learning with the PjBL model are presented in Table 2. Based on Table 2, the Arts and Culture subject with 3 observers received an average score of 3.42 (good category), the Social Sciences subject with 4 observers had an average score of 3.59 (good category), while the Indonesian language subject with 4

observers the score was 3.58 (good category). Thus, it can be said that in total student activity in learning using the PjBL model is in the good category.

Table 3. Design/media feasibility assessment

Sub-component	Rated aspect	Score	Description
Accuracy	1. Facilitate learning	4	Good
	2. Ease of use	5	Very Good
	3. Meet ergonomic aspects	5	Very Good
	4. Clarity of content	5	Very Good
	5. Appropriate font size and type	5	Very Good
	6. Color and font composition	5	Very Good
Completeness	7. Attract students	4	Good
	8. According to the characteristics of grade 3 students	5	Very Good
Interest	9. Appropriate image illustration	5	Very Good
	10. Layout components	4	Good
	11. Background selection	5	Very Good
Benefit	12. Completeness of media use	5	Very Good
	13. Attract students' attention	5	Very Good
	14. Make it easier for teachers	5	Very Good
	15. Help students understand	5	Very Good
	16. Provide motivation	5	Very Good
	Sum	77	

Based on Table 3 above, it can be seen that the results of the design/media expert test include the accuracy of media use, layout, and the usefulness of teaching materials can be said to be good, if the results of the expert assessment are calculated according to the formula, then the number 77 out of 80 points can be obtained or if the percentage is 96% or it can be said that the level of eligibility is between 81% ≤ P ≤100% then it means that this information technology-based Arabic language teaching material is very feasible and does not need to be revised. However, there is input from experts that the use of audio media will be better if the sound that appears matches the image.

Table 4. Design/media feasibility assessment

Sub Component	Rated aspect	Score	Description
Usability	1. Compliance with the syllabus	4	Good
	2. Compliance with Basic Competencies	2	Goodless
	3. Compliance with the material	2	Goodless
	4. Compliance with the use of language	4	Good
Readability	5. Presentation of material	4	Good
	6. Explanation of material	5	Very good
	7. Ease of explaining material	5	Very good
	8. Brief, concise, and clear explanation	4	Good
Display quality	9. Increase student interest	4	Good
	10. Material according to student characteristics	4	Good
	11. Help student understanding	5	Very good
	12. Provide motivation	4	Good
	13. Generate active student involvement	2	Goodless
Quality of teaching materials	14. Have an impact on students	4	Good
	15. Facilitate teachers in learning	4	Good
	16. Help the learning process	2	Goodless
	17. Learning flexibility	5	Very good
	Sum	64	

Table 4 presents the results of the material expert assessment of the developed Arabic language teaching materials, revealing critical insights into the content's quality and suitability for the target audience. The score of 68 out of 85 points, corresponding to a 75% approval rating, indicates that while the materials are generally feasible, there are significant areas that require attention and revision to enhance their effectiveness.

Table 5. Language suitability assessment

Sub-component		Rated Aspect	Score	Description
Accuracy	1.	Suitability of font type and size	5	Very good
	2.	Suitability of material with characteristics	5	Very good
	3.	Suitability with Arabic language	5	Very good
	4.	Suitability of material	5	Very good
Readability	5.	Suitability of material presentation sequence	4	Good
	6.	Clarity of information	4	Good
	7.	Use of communication language	5	Very good
	8.	Use of punctuation	3	Rather good
Usefulness	9.	Facilitate learning	4	Good
	10.	Easy to use	4	Good
	11.	Facilitate teachers	4	Good
	12.	Clarify student understanding	5	Very good
	13.	Generate motivation	5	Very good
		Sum	58	

Table 5 presents the results of the language expert assessment of the developed Arabic language teaching materials, yielding a score of 58 out of 65 points, which translates to an impressive 89% approval rating. This high score indicates that the materials are largely suitable for use in educational settings, particularly in terms of language quality, clarity, and appropriateness for the target audience. However, the assessment also highlights specific areas that require attention to further enhance the effectiveness of the teaching materials.

The assessment of the material expert on this teaching material is very necessary because it has undergone a revision of the content/material before it can be used, the revisions include: (1) There needs to be writing of Basic Competencies. This basic competency is needed so that teachers know the achievements that will be achieved during learning, (2) Writing in learning activities. Learning activities are syntax that is a guideline for teachers to carry out learning related to the theme, (3) Writing the meaning of the written vocabulary. Writing this meaning is very necessary so that they do not have difficulty when they want to deepen the material.

Based on Table 5, it can be seen that the results of the language expert test can be obtained a score of 58 out of 65 points or if it is a percentage based on the formula of 89% or it can be said that the level of suitability of the teaching material is between 81% ≤ q ≤100% and it can also be said that this Arabic language teaching material is very suitable for use in learning (Taraj, 2021). However, there are still several points that need to be considered again, especially in the choice of words in the explanation of the material that must be considered. The use of punctuation (harakat) still contains errors and the layout is still not quite right so it needs to be revised again. This Arabic language teaching material needs to be revised for the perfection of the teaching material.

Table 6 shows the assessment of the material expert after revision based on the suggestions given by the expert, so the results of the material expert assessment can be obtained with a score of 77 out of 85 points or if the percentage is 90% or is at a feasibility level between 81% ≤ P ≤100% or can also be called a very feasible category (Wahyuni et al., 2024). Limited trials were conducted in the target class, namely class III, with 5

students. The respondents have different levels of competence and are divided evenly so that the trial can reach all respondents later.

Table 6. Material expert assessment after revision

Sub Component	Rated Aspect	Score	Description
	Compliance with the syllabus	5	Very good
	Compliance with Basic Competencies	5	Very good
Accuracy	Compliance with the material	5	Very good
	Compliance with the use of language	4	good
	Presentation of material	4	good
	Explanation of material	5	Very good
Completeness	Ease of explaining material	5	Very good
	Brief, concise, and clear explanation	4	good
	Increase student interest	4	good
Interest/Concern	Material according to student characteristics	4	good
	Help student understanding	5	Very good
	Provide motivation	5	Very good
	Generate active student involvement	4	good
Benefit	Have an impact on students	5	Very good
	Facilitate teachers in learning	4	good
	Help the learning process	4	good
	Learning flexibility	5	Very good
Sum		77	

Table 7. limited test results

Question	Respondent				Sum
	1	2	3	4	
I like this book	5	5	5	4	19
This book is easy to understand	4	4	4	4	16
The pictures are good and fit the lesson	4	5	3	4	16
The media is also good and I like it	5	4	4	4	17
Every material matches the picture	4	5	3	4	16
The practice assignments are also easy	5	4	5	5	19
I like this book	4	4	3	4	15
Total					118

From the limited test data in Table 7 through the questionnaire, the percentage of the level of feasibility of Arabic language teaching materials is 118 points out of a total of 140 points, so a percentage of 84% can be obtained. The results obtained from the ratio above compared to the feasibility level table are good, so product development does not need to be edited and can be continued. Next, the researcher gave a questionnaire to students regarding this information technology-based Arabic language teaching material during arabic language learning in class.

Table 8. Results of the usability test questionnaire

Number of Respondents	Criteria	Percentage
37 Respondent	Very agree	32.7%
74 Respondent	Agree	65.5%
2 Respondent	Disagree	1.8%
0 Respondent	Strongly disagree	0%
113 Respondent		100%

Based on the results Table 8, 32.7% said they strongly agree and 65.5% said they agree, so researchers can conclude that this information technology-based Arabic. The

results of this study indicate that the IT-based Arabic language teaching material development model is effective to use.

4. Discussion

Table 4 reveals that the material expert assessment yielded a score of 68 out of 85 points, equating to a 75% approval rating. This score places the materials in the "feasible with revisions" category, indicating that while the content is generally appropriate, there are significant areas that require improvement. The absence of clearly defined Basic Competencies (KI) and Competencies to be Achieved (KD) was a major concern. This indicates a need for the materials to provide a structured framework that guides both teachers and students in understanding the learning objectives. The feedback suggests that while the materials are relevant, they lack sufficient detail in learning activities, which are crucial for effective teaching. This gap can lead to inconsistencies in instructional delivery and hinder student engagement. The score indicates that the materials are on the right track but require targeted revisions to enhance their educational value. This highlights the importance of iterative development in educational resources.

Table 5 shows that the language expert assessment resulted in a score of 58 out of 65 points, translating to an impressive 89% approval rating. This high score suggests that the language quality of the materials is largely suitable for educational use. The high score reflects a strong foundation in language use, indicating that the materials are generally clear and accurate. This is essential for effective language learning, as it facilitates comprehension and retention. Despite the favorable assessment, the experts identified issues related to vocabulary choice and punctuation (harakat). These areas require attention to ensure that the materials are linguistically appropriate and pedagogically sound. The positive assessment from language experts suggests that the materials have the potential to support effective language instruction, provided that the recommended revisions are implemented. This alignment with best practices in language education is crucial for fostering a positive learning environment.

Table 6 presents the results of the material expert assessment after revisions were made based on the feedback received. The revised materials achieved a score of 77 out of 85 points, resulting in a 90% approval rating, which places them in the "very feasible" category. The increase in the score indicates that the revisions made in response to expert feedback were effective. This demonstrates the value of incorporating expert insights into the development process, leading to improved educational materials. The revised materials not only meet the basic requirements but also align more closely with educational standards, making them suitable for classroom use. This improvement is crucial for ensuring that students receive high-quality instruction. The successful revisions highlight the importance of a feedback loop in educational material development. Continuous assessment and refinement based on expert input can lead to significant enhancements in the quality and effectiveness of teaching resources (Wolniak & Stecula, 2024).

Table 7 summarizes the feedback from a limited trial conducted with a small group of students. The total score achieved was 118 out of 140 points, resulting in a percentage of 84%. This score indicates a "good" level of feasibility for the teaching materials. The high score suggests that the materials successfully engage students and facilitate their understanding of the content. This is crucial for language learning, as engagement often correlates with motivation and retention. The trial involved students with varying levels of competence, which is significant for assessing the materials' adaptability. The positive feedback across different competence levels indicates that the materials are versatile and can cater to a broad range of learners. While the overall score is commendable, it also implies that there may still be specific aspects of the materials that could be enhanced. For instance, further analysis of individual feedback could reveal particular areas where students faced challenges or required additional support (Van Hoe et al., 2024).

Table 8 presents the results of the usability test questionnaire, where 32.7% of respondents strongly agreed and 65.5% agreed with the effectiveness of the information technology-based Arabic language teaching materials. This indicates a strong overall approval rating from the students. This is in accordance with (Wargadinata et al., 2021) research that showed that the application of teaching materials to Arabic language students shows quite effective results. The results of this study also support research by (Nurazizah et al., 2023) which concluded that the results of student assessment and evaluation of the application of teaching materials obtained a percentage of 85.12% with a very appropriate category.

The overwhelming majority of students expressing agreement with the materials' effectiveness suggests that they find the resources valuable for their learning. This positive reception is essential for the successful implementation of any educational resource. The breakdown of scores in various aspects, such as compliance with the syllabus, clarity of explanations, and the ability to generate student interest, highlights the strengths of the materials. For instance, the high scores in "helping student understanding" and "generating active student involvement" indicate that the materials are not only informative but also engaging. Despite the positive feedback, the presence of a small percentage of students who disagreed or expressed neutrality suggests that there is room for improvement. Addressing the concerns of these students could further enhance the materials' effectiveness and ensure that all learners benefit from the resources (Aina & Abdulwasiu, 2023).

5. Conclusion

Based on the process of development, validation, testing, and revision of information technology-based teaching materials for lower elementary school students, it can be concluded that the final result of the product design for developing technology-based Arabic teaching materials for elementary schools has fulfilled the components as teaching materials after receiving validation from a team of experts at a feasibility level of between 81% ≤ P ≤100% so that it is categorized as very feasible and the results of the usability test by students in class show a percentage of 32.7% strongly agree and as many as 65.5% agree that this information technology-based Arabic teaching material is feasible to be used in learning.

Authors Contribution: Djody: methodology, conducting the research and writing the original article, field data collection, data analysis, and revision. Suharsiwi: Field data collection data analysis, and revision. Muhyiddin Tohir Tamimi, Busahdiar, and Fauzi Al-Mubarok played a role in providing comparative reviews to the main author, and improving the writing of the paper

Conflict of Interest: The authors declare no conflict of interest.

Acknowledgments: This research was independently funded by the researcher and received permission from the Muhammadiyah University of Jakarta through the Faculty of Islamic Studies in 2023.

6. References

Aina, J. K., & Abdulwasiu, A. A. (2023). Teachers' Effective Use of Educational Resources and Their Effect on Students' Learning. *ÜNİVERSİTEPARK Bülten*, *12*(2), 83–98. https://doi.org/10.22521/unibulletin.2023.122.4

Chaves, T. C., de Lima, T. C., Spavieri, J. H. P., Claudio, A. C. de J., Pereira, R. B. R., & de Lira, M. R. (2023). How to determine the quality of a questionnaire according to the Consensus-based Standards for the selection of health Measurement

Instruments? A simplified guide to the measurement properties of assessment instruments - Part II: validity, responsiveness, *Brazilian Journal Of Pain*, *6*(4), 418–426. https://doi.org/10.5935/2595-0118.20230092-en

Febriani, S. R., & Bedra, K. G. (2022). Al-Ta' rib The Critical Analysis of Hiwar in Madrasah Ibtidaiyyah Textbook based on Core Competencies in the Republic of Indonesia. *AlTa'rib*, *10*(2), 185–198. http://dx.doi.org/10.23971/altarib.v10i2.4486

Haniah, H., Mahira, M., & Djuaeni, M. N. (2023). The Development of Interactive E-Book-Based Teaching Materials for Senior High School Students. *Arabiyatuna: Jurnal Bahasa Arab*, *7*(1 May), 55. https://doi.org/10.29240/jba.v7i1.6690

Hosen, N. (2019). Challenging Traditional Islamic Authority: The Impact of Social Media in Indonesia. *Proceedings of International Conference on Da'wa and Communication*, *1*(1), 84–100. https://doi.org/10.15642/icondac.v1i1.280

Ilham, M., Nurhikmah, & Ruslan. (2023). Development of Flipbook-Based E-Books on Office Technology Subjects. *Indonesian Journal of Educational Technology*, *02*(01), 9–19. https://ojs.unm.ac.id/IJET/article/view/45893/21918

Joshi, A., Kale, S., Chandel, S., & Pal, D. (2015). Likert Scale: Explored and Explained. *British Journal of Applied Science & Technology*, *7*(4), 396–403. https://doi.org/10.9734/bjast/2015/14975

Letmiros, L. (2019). Arabic: Why Indonesians Have To Learn It? *International Review of Humanities Studies*, *4*(2). https://doi.org/10.7454/irhs.v4i2.166

Mujib, Fatul dan Nailul Rahmawati, 2011, *Metode Permainan-Permainan Edukatif dalam Belajar Bahasa Arab*, Jogjakarta: Diva Press. http://103.255.15.77/detail-opac?id=278774

Nasir, N., & Sukmawati, S. (2023). Analysis of Research Data Quantitative and Qualitative. *Edumaspul: Jurnal Pendidikan*, *7*(1), 368–373. https://scholar.google.com/citations?view_op=view_citation&hl=id&user=XBqDkhsAAAAJ&citation_for_view=XBqDkhsAAAAJ:tS2w5q8j5-wC

Nasution, S., Asari, H., Al-Rasyid, H., Dalimunthe, R. A., & Rahman, A. (2024). Learning Arabic Language Sciences Based on Technology in Traditional Islamic Boarding Schools in Indonesia. *Nazhruna: Jurnal Pendidikan Islam*, *7*(1), 77–102. https://doi.org/10.31538/nzh.v7i1.4222

Naveed, H., Khan, A. U., Qiu, S., Saqib, M., Anwar, S., Usman, M., Akhtar, N., Barnes, N., & Mian, A. (2024). A Comprehensive Overview of Large Language Models. *ArXif*, *April*(1), 46. https://doi.org/10.48550/arXiv.2307.06435

Nurazizah, S., Bahtiar, I. R., & Email, I. (2023). Development Of Video-Based Arabic Reading Learning Media. *Ilmu Kependidikan Dan Bahasa Arab*, *11*(2), 284–298. http://dx.doi.org/10.24952/thariqahilmiah.v11i2.8437

Prayudi, R. A., Hakiki, A. K., Rezki, N., Putra, D., Anzka, T. O., Ihsan, M. T., & Training, T. (2021). The Use Of Technology In English Teaching & Learning Process. *Jurnal Riset Dan Inovasi Pembelajaran*, *1*(2), 102–111. https://doi.org/10.51574/jrip.v1i2.38

Prastowo, Andi, 2014, *Panduan Kreatif Membuat Bahan Ajar Inovatif*, Yogyakarta: Diva Press. https://scholar.google.co.id/citations?view_op=view_citation&hl=id&user=5-wUEJIAAAAJ&citation_for_view=5-wUEJIAAAAJ:J_g5lzvAfSwC

Peraturan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi No. 12 Tahun 2024, https://peraturan.go.id/files/permendikbudristek-no-12-tahun-2024.pdf

Puspitarini, Y. D., & Hanif, M. (2019). Using Learning Media to Increase Learning Motivation in Elementary School. *Anatolian Journal of Education*, *4*(2), 53–60. https://doi.org/10.29333/aje.2019.426a

Richard, P. B., Yi, Y., & Philips, L. W. (2017). Two Criteria for Good Measurements in Research: Validity and Reliability. *Administrative Science Quarterly*, *36*(3), 421–458. http://www.jstor.org/stable/2393203

Rohimajaya, N. A., Sudirman, A., & Hamer, W. (2021). Developing English Materials for the Students of the Information System Department at Technology and

Information Faculty, Mathlaul Anwar University Banten. *Language Circle: Journal of Language and Literature*, *15*(2), 241–248. https://doi.org/10.15294/lc.v15i2.26275

Rohmadheny, P. S., & Laila, Y. (2020). Expert Judgment of Learning Achievements Evaluation Instrument for Children Age 4-5 Years Old. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *5*(1), 168. https://doi.org/10.31004/obsesi.v5i1.524

Rosyad, M. S., Bahruddin, U., & Ibrahim, F. M. A. (2023). The Reality of Learning Arabic Listening Skills at Pesantren-Based Universities from the Perspective of Teaching Materials. *LISHANUDHAD: Jurnal, Bahasa, Pembelajaran Dan Sastra Arab*, *10*(2), 92–120. https://doi.org/10.29333/aje.2019.426a

Sa'dudin, I., Hafizd, J. Z., & Safitri, E. (2022). The Arabic's Significant Role In The Understanding Of Islamic Law. *Eralingua: Jurnal Pendidikan Bahasa Asing Dan Sastra*, *6*(2), 371. https://doi.org/10.26858/eralingua.v6i2.34716

Samad, S., & Arifin, N. Y. (2024). Integrating Technology in Learning: A Literature Review. *Technical and Vocational Education International Journal (TAVEIJ)*, *4*(1), 1–5. https://doi.org/10.55642/taveij.v4i1.603

Sholihah, D. Z., Wardani, N. S., & Prasetyo, A. K. (2022). The Development of e-Book Based on Problem and Project Based Learning Assisted by Book Creators. *Teknologi Pendidikan*, *24*(2), 258–270. https://doi.org/10.21009/jtp.v24i2.28851

Sugiyono, 2017, *Metode Penelitian Pendekatan Kulitatif & Kuantitatif dan R&D*, (Bandung: Alfabeta). https://scholar.google.com/citations?view_op=view_citation&hl=id&user=MGOs5rkAAAAJ&citation_for_view=MGOs5rkAAAAJ:NaGl4SEjCO4C

Supriyono, S. (2022). Development In Education : Model Borg & Gall. In *Teaching Material* (Issue May, p. 46). https://doi.org/10.13140/RG.2.2.10113.94566

Syamriani, S., Jusniar, J., & Hardin, H. (2023). Development of E-module Flipbook Buffer Solution Based On Discovery Learning Model. *UNESA Journal of Chemical Education*, *12*(1), 8–16. https://doi.org/10.26740/ujced.v12n1.p8-16

Taraj, G. (2021). What do College Learners Think of Synchronous Learning? *International Journal of Learning, Teaching and Educational Research*, *20*(4), 459–464. https://doi.org/10.26803/ijlter.20.4.5

Van Hoe, A., Wiebe, J., Slotta, J., Rotsaert, T., & Schellens, T. (2024). Designing Dialogic Peer Feedback in Collaborative Learning: The Role of Thinq Tank. *Education Sciences*, *14*(11). https://doi.org/10.3390/educsci14111231

Wahyuni, M., Medriati, R., & Setiawan, I. (2024). Development of Interactive Learning Media Assisted by Articulate Storyline 3 to Train High School Students' Problem-Solving Skills. *Asian Journal of Science Education*, *6*(1), 95–107. https://orcid.org/0009-0003-5855-2019

Wardana, A., Wargadinata, W., Hasan, N., & Mohammad, B. (2021). Teacher's Challenges in Implementing HOTS in Learning Arabic During Covid-19 Pandemic. *Journal of Arabic Language Teaching, Linguistics, and Literature*, *4*(1), 1–14. https://doi.org/10.22219/jiz.v4i1.15606

Wargadinata, W., Islam, U., Maulana, N., & Ibrahim, M. (2021). Critical Reading Material Development based on Quran for Arabic Students. *Dinamika Ilmu*, *21*(1), 1–21. https://doi.org/10.21093/di.v21i1.3160

Wolniak, R., & Stecula, K. (2024). Evaluation of Quality of Innovative E-Learning in Higher Education : An Insight from Poland. *Applied System Innovation*, *7*(109), 33. https://doi.org/10.3390/asi7060109

Yu, B., Guo, W. Y., & Fu, H. (2024). Sustainability in English Language Teaching: Strategies for Empowering Students to Achieve the Sustainable Development Goals. *Sustainability (Switzerland)* , *16*(8). https://doi.org/10.3390/su16083325

Yusup, Tayar dan saiful. A, 2015 *Metodologi Pengajaran agama dan* Bahasa Arab, Jakarta: PT Raja Grafindo Persada, https://onesearch.id/Record/IOS6527.slims-5165