

Developing A Web-Based Interactive Arabic Assessment To Stimulate Student's Interest In Learning

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Abstract

This research aims to produce a valid and practical web-based interactive Arabic assessment to stimulate students' interest in learning, especially students in Madrasah Aliyah. This type of research is Research & Development. This research was conducted through the feasibility and practicality stages. The research data were collected through questionnaires distributed to experts, teachers, and students, then processed through descriptive statistics. This research and development showed that the web-based interactive Arabic assessment developed to stimulate students' interest in learning at Madrasah Aliyah was categorised as very feasible, with an average score of 4.26, and also categorised as very practical, with an average score of 4.395. Based on the research and development results, it is hoped that teachers can use the developed web-based interactive Arabic assessment to stimulate students' interest in learning at Madrasah Aliyah..

Keywords: Arabic; Interactive Assessment; Learning Interest; Wordwall; Application

INTRODUCTION

The assessment transformation from the conventional to digital is a necessity in evaluation process in Arabic learning. Islamic Universities become the first milestone and a pioneer in this transformational flow by gradually assessing the conventional Arabic language assessment (Rahman et al., 2022). Digital-based assessment refers to the evaluation and measurement of students' knowledge, skills, and abilities through the use of digital technologies and platforms (Nurazim & Baroroh, 2024). Interactive assessment that utilized the convenience of technology and were interactive were currently one of the needs to motivate students to use the technology carefully and precisely (Hamamah et al., 2023).

In the independent curriculum in Indonesia, Arabic subject assessment is divided into two, namely formative assessment and summative assessment. Formative assessment is an assessment carried out throughout the learning process, while summative assessment is carried out at the end of learning, either at the end of the lesson unit or at the end of the semester. Arabic language assessment for students, especially in Madrasah Aliyah, includes assessment for aspects of language skills and assessment for aspects of linguistic knowledge. In Madrasah Aliyah, the assessment for the language skills aspect includes listening, speaking, reading, and writing, while the knowledge aspect includes grammar.

The vocabulary is included in each skill, but the listening skill tends to be more than the other skills

Based on the preliminary study at Madrasah Aliyah in Tanah Datar Regency, it was found that web-based assessment has not been used in Arabic summative assessment. Summative assessment of Arabic is still carried out conventionally through written exams and oral exams directly with the teacher. This is due to many factors, one of which is due to the limited ability of Arabic teachers in making web-based assessments. According to research of Rahmah et al. (2024), teachers realized that the use of technology-based media, especially the web, could be a solution to improving students' Arabic skills. But, their abilities and knowledge of various interesting learning media are limited. In fact, according to Azhar et al. (2023), the application of technology contributes positively to the assessment of Arabic learning. Teachers can set time limits for test questions, prevent the possibility of cheating, and design the questions that are not only written, but also involve audio and video elements.

Assessment in education employing web tools, also known as e-assessment, deals with the effective use of technology to support successful instruction (Cohen & Sasson, 2016). The Interactive tools offer interactive exercises, instant feedback, and a variety of activities that cater to different learning styles. As a result, students are more likely to participate actively and consistently in their language learning journey, leading to improved proficiency (Huriati et al., 2024).

Digital technologies have a crucial role to play in the teaching of foreign languages (OECD, 2024). Technology plays a very important role in improving language proficiency and can be used as a tool to make students become more proficient in speaking, listening, reading and writing (Godwin-Jones, 2015; Hembrough & Jordan, 2020; Siminto, 2023). Some information technologies were useful to improve foreign language skills (Atmowardoyo et al., 2020). Wider access to learning resources, technology-based learning applications, adaptive learning, and the use of technology in the classroom have opened up great opportunities for students to improve their language skills (Siminto, 2023). Interactive teaching methods for language learners replace traditional lesson styles (Diyora & Mohinakhon, 2022). Interactive tools such as language learning apps, online games, and multimedia resources make the learning process more enjoyable and dynamic (Huriati et al., 2024).

The use of web-based learning media can increase student interest in learning (Sulyanah et al., 2021). Most of the students like learning more after using the website education using an interactive content that contains the game as the instructional materials because they previously known that learning science using a book and on way direction or lecturing method is boring, feel unmotivated. By using website education, the students feel motivated, fun, and able to assist the students in learning (Astuti et al., 2020).

Currently, the interactive websites is also frequently used by students. The use of library materials is less used by students because a lot of reference information can now be accessed online (Hamid et al., 2024). Nowadays, students are familiar with technology such as the interactive websites. Therefore, interactive websites are very likely to be used in learning, including as an assessment tool. In fact, students are more interested in taking online assessments than taking conventional assessments.

There are many platforms available that can be utilised to create questions for web-based interactive assessments that vary in form and standard. One of them is Wordwall. Wordwall is one of the digital learning media that allows users to create

various digital learning media, especially to create educational quizzes. The advantages of Wordwall are that it is easy to use, provides free access to its features, and allows users to choose one of them to create digital learning media.

Web-based learning using Wordwall is learning that is fun for students and tends to be more varied, so it can increase student interest in learning (Aidah & Nurafni, 2022; Gandasari & Pramudiani, 2021; Pradani, 2022) and ultimately can also improve their learning outcomes (Fidya et al., 2021; Gusman et al., 2022; Maghfiroh, 2018).

Wordwall can be used to create interactive and printable digital activities (which are only available in the paid version). Since it is web-based, Wordwall can be used on all internet-enabled devices (Moorhouse & Kohnke, 2022). Furthermore, Diyora & Mohinakhon (2022) stated that there are several and differentiated options to use as an interactive game during the lesson in Word Wall program. It includes these templates: Quiz, match up, random wheel, open the box, group sort, find the match, random cards, matching pairs, missing word, unjumble, anagram, gameshow quiz, word search, labelled diagram, handmade, flash cards, maze chase, true or false, what a mole, crossword, flip tiles, balloon pop, image quiz, airplane, categorize, rank order, unscramble, conveyor belt, win or lose quiz, word magnets, seating plan, higher or lower and mathgenerator. These counted templates have their own role and teachers even know what kinds of interactive games they can make

Wordwall is significantly beneficial for assessing language learners, checking their reading, speaking, writing, and vocabulary skills with interactive way Diyora & Mohinakhon (2022). Wordwall can also be used to create web-based interactive Arabic assessments, because the features available in it are suitable for Arabic learning assessments such as quizzes, flashcards, true false, crosswords, matching, and so on. The assessment can be accessed by students online via computer or via android.

Several studies on the use of some existing Arabic online assessments have also been conducted. Rahman et al. (2021) investigated the use of gnomio.com web-based assessment as an evaluation tool during online Arabic lectures. Abdurrahman et al. (2021) investigated the efficiency and innovation of the Imalah.com.iBT Arabic test, while Ghaziy (2018) investigated the structure, effectiveness, and credibility of the online test from Al-Arabiya Test issued by Leipzig Germany. Mahmudi (2018) investigated the use of online tests in the form of G-form as an assessment instrument in HOTS-based Arabic language teaching'.

Several researchers have also developed web-based assessments for learning Arabic and other languages. Among them are the development of Wikalah iBT, an internet-based Arabic Language Proficiency Test instrument (Syihabuddin et al., 2021), the development of an online-based summative test for English reading skills for university students (Azmi, 2020; Sofa & Sulisty, 2017), the development of multimedia to improve reading scores on the Test of Standard English (TOSE) (Hidayati, 2017), the development of a web-based Indonesian reading test for international students (Masae, 2019) and the development of an interactive reading test with Transformer-based Automatic Item Generation (Attali et al., 2022).

Based on the literature search above, there have been limited studies concerned on development of the Arabic language assessment tool in digital form. Therefore, this research intends to develop a web-based Arabic interactive assessment using the Wordwall application to stimulate students' interest in learning Arabic, especially for summative assessment for Madrasah Aliyah students. The objective of this research is to

produce a valid and practical web-based interactive Arabic assessment to stimulate students' interest in learning.

METHOD

This study uses the research and development method. This research and development was conducted to produce a product in the form of a web-based interactive Arabic language assessment. The development model used is the 4D model. This research was conducted until the feasibility and practicality test stages. The feasibility test of the developed interactive assessment includes two aspects, namely content aspects and media aspects. The feasibility test was conducted by four experts, namely Arabic language lecturers from four PTKINs in Indonesia. The practicality test of the developed interactive assessment was carried out by asking for teacher and student responses, namely by four Arabic language teachers and fifteen students of Madrasah Aliyah in Tanah Datar Regency, West Sumatra Province, Indonesia.

The data collection instrument used was a questionnaire consisting of (1) content and media feasibility questionnaire and (2) teacher and student response questionnaire. The data collected was analysed through descriptive quantitative analysis. The rating scale for the feasibility and practicality questionnaire results is as follows:

Table 1 Feasibility and Practicality Rating Scale

No	Average Score	Category
1	4,01-5, 00	Very feasible / Very practical
2	3,01-4, 00	feasible / Practical
3	2,01-3, 00	Quite feasible / Quite practical
4	1,01-2, 00	Less feasible / Less practical
5	0,00-1,00	Not feasible / Not practical

RESULTS AND DISCUSSION

The development of this web-based Arabic interactive assessment begins with a need analysis. At the need analysis stage, researchers collected data from teachers and students about the need for interactive Arabic assessments. Based on the questionnaire distributed to Arabic language teachers in 4 State and Private Madrasah Aliyah in Tanah Datar Regency, West Sumatra Prov. West Sumatra, the following data were obtained.

Firstly, teachers perceive that it is necessary to develop web-based Arabic interactive assessment. According to the teachers, web-based Arabic interactive assessment can be used as an alternative for Arabic learning assessment. Secondly, according to teachers, students are able to use web-based Arabic interactive assessments because these assessments are easy to use and are also supported by the availability of adequate facilities, both facilities owned by madrasah and students' personal property. Thirdly, teachers perceive that web-based Arabic interactive assessment can stimulate students' interest in learning because it is interesting for students and in accordance with their characteristics, who are generation Z (gen Z) who are proficient in using the internet and actively interact with it. Fourth, only two teachers have used web-based interactive Arabic assessments, but only in Google forms, there are no other variations of interactive Arabic assessments that teachers have used. Furthermore, based on students' need analysis, it was found that most students have never participated in web-based Arabic language assessment. In addition, students also stated that web-based interactive Arabic assessment is easy for them to use, effective, and can increase their interest in learning.

Thus, the development of web-based interactive Arabic language assessment through Wordwall application is necessary, especially for summative assessment at the end of each Arabic language learning unit for Madrasah Aliyah students. Through this development, the assessments given are more varied and can contain all aspects of knowledge and Arabic language proficiency tested in the summative assessment. The web-based interactive Arabic assessment is also in accordance with the characteristics of Madrasah Aliyah students so that it can increase their interest in Arabic language learning. Next, the researcher designed the web-based interactive Arabic language assessment and created a prototype. The web-based interactive Arabic assessment consists of assessments for listening skills, speaking skills, grammar, reading skills, and writing skills.

After the web-based interactive Arabic language assessment is completed, the feasibility test of the developed product is carried out. The feasibility test was carried out by experts on the content and media aspects. The following are the results of the feasibility test of the content aspect.

Table 2 Content Feasibility

Item	Expert 1	Expert 2	Expert 3	Expert 4	Sum	Average	Category
1	4	5	4	4	17	4,25	Very feasible
2	4	5	4	4	17	4,25	Very feasible
3	4	5	4	4	17	4,25	Very feasible
4	4	5	4	3	16	4	Very feasible
5	5	5	4	3	17	4,25	Very feasible
6	5	5	5	4	19	4,75	Very feasible
7	4	5	5	4	18	4,5	Very feasible
8	4	5	4	3	16	4	Very feasible
9	4	5	4	3	16	4	Very feasible
10	4	4	3	4	15	3,75	Very feasible
11	4	5	4	4	17	4,25	Very feasible
12	4	4	4	4	16	4	Very feasible
Average	4,17	4,83	4,08	3,67	16,75	4,19	Very feasible

Based on the table above, it is known that the content feasibility score ranges from 3.75 to 4.75 with a percentage of 75% to 95%. While the average of the feasibility results on the content aspect is 4.19 with a very feasible category. Thus, the content aspect of the web-based interactive Arabic assessment is declared very feasible. In addition to providing quantitative score, the expert also gave suggestions for improving the web-based interactive Arabic assessment. The suggestions given on the content aspect are to add distractor answer choices and correct word writing errors.

The results of the feasibility test of the media aspect (table 3). The media feasibility score ranges from 4 to 4.75 with a percentage of 80% to 95%. While the average of the feasibility score on the media aspect is 4.33 with a very feasible category. Thus, the media aspect of the web-based interactive Arabic assessment is declared very feasible. In addition to providing quantitative score, the expert also gave suggestions for improving the web-based interactive Arabic assessment. The suggestions given on the media aspect are to add audio to the speaking assessment section and improve the pronunciation in the audio.

Table 3 Media Feasibility

Item	Expert 1	Expert 2	Expert 3	Expert 4	Sum	Average	Category
1	4	5	4	4	17	4,25	Very feasible
2	4	5	4	4	17	4,25	Very feasible
3	4	5	5	3	17	4,25	Very feasible
4	4	5	4	4	17	4,25	Very feasible
5	4	5	3	4	16	4	Very feasible
6	5	5	4	4	18	4,5	Very feasible
7	5	5	5	4	19	4,75	Very feasible
8	4	5	4	4	17	4,25	Very feasible
9	5	5	4	4	18	4,5	Very feasible
10	4	5	4	4	17	4,25	Very feasible
11	4	5	4	4	17	4,25	Very feasible
12	4	5	4	4	17	4,25	Very feasible
Average	4,25	5,00	4,08	3,92	17,25	4,33	Very feasible

To determine the practicality of the developed web-based interactive Arabic assessment, researchers collected data through questionnaires from teachers and students. The practicality test was conducted by 4 Arabic teachers and 10 students from Madrasah Aliyah in Tanah Datar Regency. The following are the results of the practicality test from the teachers.

Table 4 Practicality Test Results from the Teachers

Item	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Sum	Average	Category
1	5	4	4	4	17	4,25	Very Practical
2	5	4	4	4	17	4,25	Very Practical
3	4	4	4	4	16	4	Very Practical
4	5	4	4	5	18	4,5	Very Practical
5	5	4	5	4	18	4,5	Very Practical
6	5	5	4	5	19	4,75	Very Practical
7	5	3	5	5	18	4,5	Very Practical
8	5	4	5	5	19	4,75	Very Practical
9	5	4	5	4	18	4,5	Very Practical
10	5	3	5	5	18	4,5	Very Practical
Average	4,9	3,9	4,5	4,5	17,8	4,42	Very Practical

Based on the table above, it is known that the practicality score ranges from 4 to 4.75. While the average of the practicality score from the teachers is 4.42 with a very practical category. Thus, the web-based interactive Arabic assessment is declared very practical according to the teachers.

The results of the practicality test from the students (table 5). The practicality score ranges from 4.20 to 4.70. While the average of the practicality score from the students is 4.37 with a very practical category. Thus, the web-based interactive Arabic assessment is declared very practical according to the students. It can be concluded that the web-based interactive Arabic assessment developed is feasible according to content and media experts, and also practical according to teachers and students. In addition, the researcher also found that Arabic teachers responded positively to the interactive Arabic assessment. Teachers are very interested in adopting it for use in the Arabic classroom so that all students can utilise it. Students are also enthusiastic about participating in this interactive Arabic assessment, because they belong to Generation Z, which is very familiar with digital technology and interactive websites.

Table 5 Practicality Test Results from the Students

Item	Students										Sum	Average	Category
	1	2	3	4	5	6	7	8	9	10			
1	4	4	4	5	5	4	5	4	4	4	43	4,30	Very Practical
2	4	4	5	5	4	4	4	4	4	4	42	4,20	Very Practical
3	4	4	5	5	4	4	4	5	5	4	44	4,40	Very Practical
4	4	4	5	4	5	4	4	4	4	5	43	4,30	Very Practical
5	4	4	4	5	4	5	5	4	4	4	43	4,30	Very Practical
6	4	4	5	5	5	5	5	5	5	4	47	4,70	Very Practical
7	4	4	5	4	4	4	4	5	5	5	44	4,40	Very Practical
8	4	4	5	5	4	4	4	4	4	4	42	4,20	Very Practical
9	4	4	5	5	5	4	4	4	4	4	43	4,30	Very Practical
10	4	4	5	5	5	5	4	5	5	4	46	4,60	Very Practical
Average	4	4	4,8	4,8	4,5	4,3	3	4	4	2	43,7	4,37	Very Practical

As previously researchers stated that students now often use interactive websites, on the contrary, students use library materials less and less (Hamid et al., 2024). In addition, interactive tools offer interactive exercises, instant feedback, and a variety of activities that cater to different learning styles (Huriati et al., 2024). Therefore, the use of conventional assessments such as using paper will be boring for students. On the contrary, assessment through an interactive website will certainly be something different for them, so they are enthusiastic about participating in the assessment.

There are many benefits of web-based Arabic assessments using Wordwall. As stated by previous researchers, web-based learning using Wordwall is significantly beneficial for assessing language learners, checking their reading, speaking, writing, and vocabulary skills with interactive way (Diyora & Mohinakhon, 2022), because the questions given are not only written, but also involve audio and video elements (Azhar et al., 2023). Therefore, this web-based Arabic language assessment using Wordwall was also responded well by teachers and students.

CONCLUSION

Based on the results of research and development obtained, it can be concluded that the feasibility test results show that the web-based interactive Arabic language assessment developed using the Wordwall application obtained an average score of 4.19 in the content aspect and 4.33 in the media aspect, with an average overall feasibility aspect of 4.26 in the very feasible category. The results of the practicality test showed that the web-based interactive Arabic language assessment developed using the Wordwall application obtained an average score from teachers of 4.42 and from students of 4.37, with an average overall practicality aspect of 4.395 in the very practical category. Arabic teachers at Madrasah Aliyah welcomed the development of web-based Arabic interactive tests and were enthusiastic about using them. Therefore, it is hoped that related

parties will facilitate the development of teachers' abilities in making web-based interactive Arabic assessments. The Arabic teachers' forum (MGMP) is expected to facilitate the dissemination of this web-based interactive Arabic assessment more widely.

REFERENCES

- Abdurrahman, M., Sopian, A., Maulani, H., & Faqih, A. (2021). Arabic Language Proficiency Test Efficiency and Innovation on Imalah.com. *Proceedings of the Fifth International Conference on Language, Literature, Culture, and Education (ICOLLITE 2021)*, 419–423.
- Aidah, N., & Nurafni, N. (2022). Analisis Penggunaan Aplikasi Wordwall pada Pembelajaran IPA Kelas IV di SDN Ciracas 05 Pagi. *Pionir: Jurnal Pendidikan*, 11(2), 161–174. <https://doi.org/10.22373/pjp.v11i2.14133>
- Astuti, L., Wihardi, Y., & Rochintaniawati, D. (2020). The Development of Web-Based Learning using Interactive Media for Science Learning on Levers in Human Body Topic. *Journal of Science Learning*, 3(2), 89–98. <https://doi.org/10.17509/jsl.v3i2.19366>
- Atmowardoyo, H., Weda, S., & Sakkir, G. (2020). Information Technology used by Millennial Good English Language Learners in an Indonesian University to Improve their English Skills. *Solid State Technology*, 63(5), 9532–9547. <http://eprints.unm.ac.id/27643/%0Ahttp://eprints.unm.ac.id/27643/2/2>. Hasil Turnitin SST.pdf
- Attali, Y., Runge, A., Laflair, G. T., Yancey, K., Goodwin, S., Park, Y., & Davier, A. A. Von. (2022). The Interactive Reading Task : Transformer-based Automatic Item Generation. *Front. Artif. Intell*, 5(903077), 1–13.
- Azhar, M., Wahyudi, H., Promadi, & Masrun. (2023). Penggunaan Teknologi dalam Pembelajaran Bahasa Arab di Indonesia. *Jurnal Review Pendidikan Dan Pengajaran*, 6(4), 3160–3164. <https://journal.universitaspahlawan.ac.id/index.php/jrpp/article/view/20984/15794>
- Azmi, U. (2020). Developing Web-based Reading Tests for the Students of English Language Education. *Journal of Applied Linguistics, Translation, and Literature*, 1(2), 92–104.
- Cohen, D., & Sasson, I. (2016). Journal of Technology and Science Education. *Journal of Technology and Science Education*, 6(3), 188–208. <https://doi.org/10.3926/jotse.1120>
- Diyora, T., & Mohinakhon, K. (2022). Effective Ways of Using Word Wall in Primary Education. *International Scientific Research Journal*, 3(5), 153–158.
- Fidya, I., Romdanih, & Oktaviana, E. (2021). Peningkatan Hasil Belajar IPS Melalui Media Game Interaktif Wordwall. *Prosiding Seminar Nasional Pendidikan STKIP Kusuma Negara III SEMNARA*, 219–227. <https://jurnal.stkipkusumanegara.ac.id/index.php/semnara2020/article/view/1301>
- Gandasari, P., & Pramudiani, P. (2021). Pengaruh Aplikasi Wordwall terhadap Motivasi Belajar IPA Siswa di Sekolah Dasar. *Edukatif: Jurnal Ilmu Pendidikan*, 3(6), 3689–3696. <https://doi.org/10.31004/edukatif.v3i6.1079>
- Ghazi, I. A.-H. (2018). Online Arabic Language Proficiency Tests for Non-Native Speakers (Al- ARABIYYA-TEST as a Case Study). *Majallah Al-Qism Al-Arabi*, 25, 397–424.

- Godwin-Jones, R. (2015). Contributing, Creating, Curating: Digital Literacies for Language Learners. *Language Learning and Technology*, 19(3), 8–20. <https://www.lltjournal.org/item/10125-44427/>
- Gusman, B. A., Salsabila, U. H., Hoerotunnisa, Giardi, L. Y., & Viki Fadhila. (2022). Efektivitas Platform Wordwall pada Pembelajaran PAI di Madrasah Aliyah Negeri (MAN) pada Masa Pandemi. *Jurnal Intelektual: Jurnal Pendidikan Dan Studi Keislaman*, 11(3), 203–221. <https://doi.org/10.33367/ji.v11i3.2080>
- Hamamah, Sahar, R. B., Emaliana, I., Hapsari, Y., & Degeng, P. D. D. (2023). Assessing The Feasibility of a Web-Based Interactive Writing Assessment (WISSE): An Evaluation of Media and Linguistic Aspects. *JEELS (Journal of English Education and Linguistics Studies)*, 10(1), 177–197. <https://doi.org/10.30762/jeels.v10i1.1093>
- Hamid, M. F. A., Sahrir, M. S., Ab. Halim, Z., Yahaya, M. F., Nasir, M. S., Sha'ari, S. H., & Amiruddin, A. Z. (2024). Needs Analysis for the Development of Website-Based Interactive Infographic Modules in Arabic Grammar Learning. *Ijaz Arabi: Journal of Arabic Learning*, 7(1), 131–140. <https://doi.org/10.18860/ijazarabi.v7i1.24342>
- Hembrough, T., & Jordan, J. (2020). Creating a Digital Writing Classroom: A Mixed Methods Study about a First-year Composition Tablet Initiative. *International Journal of Instruction*, 13(2), 567–586. <https://doi.org/10.29333/iji.2020.13239a>
- Hidayati, F. N. (2017). *Pengembangan Multimedia Interaktif Reading pada Test of Standart English*. 2(1), 87–95.
- Huriati, N., Panggabean, H. M., Wahyuningsih, D., Franchisca, S., & Agnes Manuhutu, M. (2024). The role of Technology integration in Enhancing English language proficiency among Senior High School students. *Journal on Education*, 06(04), 20065–20075. <https://jonedu.org/index.php/joe/article/view/6046#:~:text=The integration of technology in,personalized learning%2C and fosters collaboration.>
- Maghfiroh, K. (2018). Penggunaan Media Word Wall untuk Meningkatkan Hasil Belajar Matematika Pada Siswa Kelas IV MI Roudlotul Huda. *Jurnal Profesi Guru*, 4(1), 64–70. <https://journal.unnes.ac.id/nju/index.php/jpk>
- Mahmudi, A. (2018). The Use of G-form as an Assessment Instrument in Arabic Language Teaching Based on HOTS. *At-Tarbawi: Jurnal Kajian Kependidikan Islam*, 3(2), 139–149. <https://doi.org/10.22515/attarbawi.v3i2.1481>
- Masae, A. (2019). Pengembangan Tes Membaca Bahasa Indonesia Berbasis Web bagi Mahasiswa Thailand di Universitas Negeri Yogyakarta. *LingTera*, 6(1), 91–99.
- Moorhouse, B. L., & Kohnke, L. (2022). Creating the Conditions for Vocabulary Learning with Wordwall. *RELC Journal*, 1–6. <https://doi.org/10.1177/00336882221092796>
- Nurazim, O. A., & Baroroh, R. U. (2024). *A Literature Review on Assessment Models for Maharah Kitabah in Arabic Instructions: A Conventional to Digital Based Assessment*. 9(1), 66–83. <https://journal.iaingorontalo.ac.id/index.php/al/article/view/4500>
- OECD. (2024). The use of digital technologies to enhance foreign language learning. In *How 15-Year-Olds Learn English: Case Studies from Finland, Greece, Israel, the Netherlands and Portugal* (pp. 20–36). OECD Publishing. https://www.oecd-ilibrary.org/education/how-15-year-olds-learn-english_0f593b41-en
- Pradani, T. G. (2022). Penggunaan Media Pembelajaran Wordwall untuk Meningkatkan

- Minat dan Motivasi Belajar Siswa pada Pembelajaran IPA di Sekolah Dasar. *Educenter : Jurnal Ilmiah Pendidikan*, 1(5), 452–457. <https://jurnal.arkainstitute.co.id/index.php/educenter/index>
- Rahmah, I., Asrowi, & Musadad, A. A. (2024). *Web-based Project-based Learning to Enhance Arabic Language Skills of Madrasah Aliyah Students Arabiyât*. 11(1), 135–146. <https://journal.uinjkt.ac.id/index.php/arabiyat/article/view/40488>
- Rahman, N. F., Dakhoir, A., Hasan, A. M., Ihsani, H. N., & Khair, N. (2021). Web Based Assessment Alternative for Arabic Online Exam. *Izdihar : Journal of Arabic Language Teaching, Linguistics, and Literature*, 4(2), 179–194. <https://doi.org/10.22219/jiz.v4i2.16525>
- Rahman, N. F., Masdar, M. I., Ilmiani, A. M., Habibie, F., & Samdouni, S. (2022). Transformation of Arabic Assessment in Indonesia: Conventional Assessment Toward Digital Assessment. *Al-Ta'rib : Jurnal Ilmiah Program Studi Pendidikan Bahasa Arab IAIN Palangka Raya*, 10(2), 199–212. <https://doi.org/10.23971/altarib.v10i2.4510>
- Siminto, S. (2023). The Role of Technology in Improving Language Skills in Education. *Indo-MathEdu Intellectuals Journal*, 4(2), 1216–1224. <https://doi.org/10.54373/imeij.v4i2.345>
- Sofa, & Sulisty, G. H. (2017). A Model of an Online Reading Comprehension Summative Test for College Students. *Indonesian Journal of English Education*, 4(2), 168–187. <https://doi.org/10.15408/ijee.v4i2.8344>
- Sulyanah, S., Hasanah, F. N., & Untari, R. S. (2021). Application of Web Based Learning to Measure Students Learning Interest. *Journal of Physics: Conference Series*, 1764(1), 1–6. <https://doi.org/10.1088/1742-6596/1764/1/012099>
- Syihabuddin, Abdurrahman, M., Akmalia, F., & Abdussalam, A. (2021). Wikalah iBT: How Is An Internet-Based Arabic Language Proficiency Test Instrument Developed? *IJAZ ARABI: Journal of Arabic Learning*, 4(3), 535–547. <https://doi.org/10.18860/ijazarabi.v4i3.12198>